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THE PRE-SCHOOL CHILD

FROM THE STANDPOINT OF PUBLIC HYGIENE AND EDUCATION

BY

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EDITOR'S INTRODUCTION

THE World War served to give an entirely new emphasis to child-welfare and child-hygiene work. While causing untold suffering to millions of children, it served to give new rights to millions of others. These rights childhood might have waited a decade or more to obtain had not the frightful destruction of human life served to focus attention on the care of the next generation. In England in particular, but in France, Belgium, and other countries as well, an entirely new attention to child welfare and child hygiene has been given by direction of the State. The effect of this new work abroad, and of the attention to child life which the War brought to all lands, has been felt in our American cities and States, and in consequence we seem to-day to be on the eve of a new and a very important extension of educational activity and advantages in a new and until recently an unexpected direction.

As soon as the problem is taken up and studied a little, it is seen, as it has been seen wherever studied but nowhere more clearly than in England, that any adequate attention to child health and child welfare must go back into the pre-school age to begin, and that the work must really commence with mothers and babies and lead up to a close connection with the kindergarten and the primary school. The creation of

The Children's Bureau, at Washington, for the study of pre-school-child and maternity problems; the enactment of the Sheppard-Towner maternity bill by Congress, giving aid to the States for maternity and infant-hygiene work; the formulation of minimum standards for child-welfare work by a national committee; the creation of divisions of Child Hygiene by twenty-three additional States between 1918 and 1920, making thirty-two in all, with every prospect that all the States will soon create such divisions; the establishment of a rapidly increasing number of city and county health centers for pre-school-child service; and the enactment of much recent legislation making better provision for school health service are among the more important recent evidences that a national awakening is already under way with us as to the importance of the care of children during the pre-school years, if we are to eliminate many disease defects with which school children suffer and to produce stronger and more capable children for the years with which the school has to deal.

The problems of child care, feeding, health, nutrition, diseases, abnormalities, preventive hygiene, and mental hygiene, and the dissemination among parents of proper ideas as to the care, nurture, training, and instruction of their children are of such tremendous importance to a nation that the work which this volume of this series describes should prove of large significance to all persons charged with the organization and administration of public education. To be-

come familiar with the main outlines and purposes of a movement that is already beginning with us is an important thing for a schoolman to do. It is not only an educational problem, but also a public-welfare problem of utmost importance to the statesman as well as the educator.

The writer of this volume has given a simple and an interesting description of what is already under way, has pointed out the relations of the new child-welfare movement to the school, and in particular has shown the possibilities of a redirected and expanded kindergarten in the work of parental guidance and infant hygiene that will soon be turning to some organized agency of society for its administration. This volume should be of special interest to school administrators and students of child hygiene, while for those interested in the work of health centers and infant-welfare movements the volume will be almost indispensable.

Ellwood P. Cubberley

PREFACE

THE pre-school period of childhood was, a very few years ago, called the "No Man's Land" in the field of social endeavor. Recent literature contains frequent reference to "the neglected pre-school years," and "the gap" between the infant welfare and the school age. Child-welfare provisions, public-health activities, and social legislation have hitherto shown a tendency to slight the pre-school years, or to entrust them to the home — and to Providence. Scientific investigation has reflected a similar tendency, and we know less about the capacities, developmental needs, and norms of children of pre-school age than of any other period of growth. It has proved more convenient to study children of school age. The toddler and runabout, in comparison, have been much less accessible for investigation. It is remarkable how little we really know about them.

Our whole outlook upon the pre-school period is undergoing rapid and significant changes. The famous Fisher Education Act of 1918, passed by a Parliament not given to fads, confers upon local educational authorities power to establish nursery schools for children over two and under five years of age. The stamina of England as a nation and the health of her children are the goal of the new nursery-school movement. It has even been suggested that the nursery

school must become the foundation of the English system of education and health administration. Sir Arthur Newsholme, late principal medical officer in England, observes that the chief value of medical inspection of school children has been to demonstrate the extent to which children of school age are suffering from defects and disease which might have been prevented or minimized by attention to the pre-school period. From the standpoint of public health, the pre-school child is coming into a new and revealing perspective.

From the broad standpoint of education, or of mental hygiene, the significance of pre-school childhood is likewise receiving a new emphasis. Dynamic psychology, the behaviorist approach to the study of human conduct, and the genetic interpretations of recent psychiatry, all serve to accentuate the basic importance of the pre-school years of mental development. Social workers and visiting nurses in the active field of child and family welfare are coming to a new realization of the educational aspects of sanitation and of physical hygiene.

Although the first requisite still is to be "a good animal," it is almost impossible to confine a discussion of the welfare of the pre-school child to such substantial items as weight, diet, teeth, rickets, adenoids, and diphtheria. They are of prime importance, and our first solicitude should be, as it has proved to be, the physique of the child; but the child cannot even become a good animal unless he is wholesomely trained

and organized through mental and motor habits. He must be properly domesticated! Herein he lies at the mercy of his parents, for his more intimate personal hygiene must be attained through his parents. This whole problem of adequate domestic training profoundly involves educational issues touching both parents and child alike. It is not surprising, therefore, that there are many signs on the social horizon which show a steady drift toward bringing the pre-school period more completely under educational control.

Partly as a reflex of the World War, but fundamentally as a result of the peculiar social status of the pre-school child, this field of social endeavor is now in an extraordinary state of ferment and formativeness. Because of the diversity of the agencies concerned, and because of the many-sided interests and tendencies displayed, it seemed profitable to undertake a comprehensive survey of the problems of the pre-school child from the standpoint of public hygiene and of education. This brief volume attempts an inventory and interpretation of the situation, with the hope that the reader will be guided in making his own estimates. Since the achievements in the field of socialized pre-school hygiene, when judged by the future, are as yet relatively small and uncoördinated, the author has used such auxiliaries as "will," "should," and "may" perhaps more freely than would otherwise be tolerable. He may also have fallen into occasional prophecies and hortatives, but trusts that he has not underestimated either accomplishments or obstacles to accomplishment.

The scope of the present volume is indicated by the sub-title and the table of contents. The significance of the pre-school period is discussed in Chapter I, with reference to its general biological, medical, educational, and administrative aspects.

Chapter II is a summary statement of current agencies and tendencies in the administration of pre-school hygiene. The pre-war status of infant welfare and child hygiene, and their development during and immediately after the War, are considered. Supplementary to this chapter, Appendix D gives a compact description of typical agencies and activities in the field of pre-school hygiene in this country and in Canada. The list of agencies given in Appendix E will give the student a concrete impression of what is being done for the pre-school child through private and public effort, and will assist him to make some survey of the agencies and activities in his own community. Curiously enough, kindergarten and elementary-school teachers are not accustomed to receive, as part of their professional training, any introduction to the non-academic problems of child welfare which are so vitally related to the task and outlook of the teacher. The concrete material here presented may furnish a glimpse in the right direction.

Because of their importance and interest, a special chapter has been devoted to nurseries and nursery schools. The present status of the kindergarten is discussed in Chapter IV. The kindergarten is considered not only as a sub-primary educational institu-

tion, but as a health-promoting and social-welfare agency as well. Its relations to problems of school entrance, handicapped children, and parental education are developed in succeeding chapters. It will be evident that the author has put great faith in the future of the kindergarten. If that faith has been misplaced, the reader may freely substitute for the term "kindergarten" such expressions as "educational nursery," "induction school," "developmental center," or any convenient equivalent.

The kindergarten, however, has a place in our educational traditions and history; why should it not have a future in our policies?

Much of the material in the chapter on "Handicapped School Children" first appeared in the author's contribution to the child-welfare number of the *Annals of the American Academy of Political and Social Science* (November, 1921). A special chapter deals with children deprived of parental care; because of the numerical, hygienic, and educational importance of the problem. There is a chapter on the relations of the home, and of parental responsibility to the hygiene of the pre-school child. The concluding chapters deal in a broad but concrete manner with the large problems of the social control and administrative organization of pre-school hygiene. The significance of pre-parental education in terms of social policy is stressed. It is one of the purposes of the book to indicate the vital interdependence between pre-school hygiene and pre-parental education.

The future development of public hygiene and education in the pre-school field offers an inviting subject for speculation, and also for study and experimental demonstration. That in a future day the principle of compulsory education (and health) may be legally extended to include the kindergarten and pre-kindergarten child is, at least, an interesting possibility. It is apparent even now that socialized if not compulsory ways should be found to improve the educational lot of certain types of handicapped children of pre-school age. A developmental supervision of wider scope may be extended to pre-school children in general, whether handicapped or not. We must develop methods of approach whereby the psychological and educational aspects of hygiene may become associated with pediatric and public-health activities in the pre-school field. This does not require that we congregate all babies, toddlers, and runabouts in institutions; it is possible to graft a mental-hygiene and an educational service upon existing arrangements.

The realization of these possibilities is to a great degree dependent upon more definite and more usable information concerning the development of children of pre-school age. Much progress has been made in the definition of standards of physical growth; less with respect to mental growth. Even child psychology has favored children over six years old, because of their accessibility and convenient grouping in schools. But the present movement aiming at the scientific measurement and interpretation of individual differences

cannot and should not be confined to the period of school age.

Such considerations have led the Yale Psycho-Clinic to undertake a program of research into the norms of mental or behavior development for the pre-school years. A large number of unselected pre-school children are being studied at the ascending-age levels, including the four-months, the six-months, nine-months, twelve-months, eighteen-months, and the yearly levels up to age six. Photographic and other data are being collected, with the hope that when formulated and published they will contribute toward defining methods of social as well as clinical procedure in this field. Norms or standards of development are essential not only to the diagnostician; but in some form they may also guide others, amateur and professional, who are called upon to notice the maturity and normality of growing children.

The bibliography appended to this volume is of necessity a selected one. It lists the references in the text, and includes further titles which will lead the reader either to more detailed discussions or to fuller bibliographies. The literature in this field is bound to increase, and it will be interesting to note what the next ten years bring forth.

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THE PRE-SCHOOL CHILD

CHAPTER I

THE SIGNIFICANCE OF THE PRE-SCHOOL PERIOD

THE sixth-year molar may be regarded as a convenient punctuation point in the development of a human being. The eruption of this first permanent molar marks the termination of the early fundamental years of human existence. These are the pre-school years. The next six years bring the child to the teens (and to his second molars), and if he passes through his elementary education at an average rate he is then ready for a junior high school, which it will take him another six years to complete. At the age of eighteen he may be ready for college and professional training. His wisdom tooth will not have erupted ordinarily until the close of the twenty-fourth year. We have here four periods, each about six years in length.

In a broad biological sense these four sexennia constitute the total span of infancy — of physical and mental maturation. The first sexennium is the pre-school period; the second is the school period; the third is the period of early adolescence; the fourth of later adolescence.

The long period of plasticity. These four chapters

span the gap between birth and maturity, and together they confer upon man a longer period of plasticity than is enjoyed by any other creature. This prolongation of plasticity is not a privation, but the very condition of growth. It embodies man's unique "ability to develop." A highly trained surgeon is not ready, nowadays, to begin an independent professional career until after thirty years; while a newly hatched chick can almost shift for itself after as many hours.

The significance of the pre-school period may be interpreted from four points of view, the biological, the medical, the psychological, and the administrative.

1. Biological significance

Relation of pre-school period to later development. The biological significance of the pre-school period can only be appreciated when the period is viewed in relation to the whole span of immaturity. Let us regard the surgeon as an exception, and consider this span as made up of four stages of six years each. No stage is of course sharply marked off from the other; each stage blends into another and colors it; no stage is altogether independent. But there is one stage which has an autocratic position in the series, and therefore dominates all the rest — the autocracy of priority. The pre-school period is biologically the most important period in the development of an individual for the simple but sufficient reason that *it comes first.* Coming first in a dynamic sequence, it inevitably influences all subsequent development. These years

determine character, much as the foundation and frame determine a structure.

The very laws of growth make these the most formative of all years. The younger the creature the more rapid its growth. When measured by percentage of increment in weight and height, the growth activity of the first six years is incomparably greater than that for any subsequent period of six years. The individual begins as a fertilized ovum weighing about half of a milligram. By the time of birth the growth has been reckoned by Minot as 5,000,000 per cent. Between the ages of three and four months alone the fœtus increases fivefold. During the first five months of life the baby doubles its weight. During the first year there is a total gain of 200 per cent. During the next year the gain is about 30 per cent. This rate steadily declines until at the age of six the annual increment is only 10 per cent. After six the curve of growth remains almost on a level until puberty, when there is a slight return to the earlier growth intensity.

Adolescence. This has been called a second birth. There is a partial resurgence of the wave of growth at that time, as though nature meant the individual to enjoy, on a higher plane, the same remarkable potency which characterized his infancy. Man would surely become superman if such a supplementary period brought with it a range and degree of achievement comparable to that of the first heyday of growth in the pre-school age. Meanwhile his ability to become

completely human depends on the realization of the growth possibilities of the first sexennium.

2. Medical significance

Excessive mortality in pre-school period. The medical significance of the pre-school age can scarcely be exaggerated. Certainly exaggeration is not needed. The problems of development and disease peculiar to this period are so numerous that Pediatrics constitutes the broadest and in many respects the most important specialty in medicine.

The curve of human mortality is of decisive import. Of all the deaths of the nation, over one third occur below the age of six. Ten times as many deaths occur in the first half decade of life as in the full decade from five to fifteen years.

That this pre-school mortality is excessive can hardly be denied even by those who call attention to the racial benefit of many infant deaths. Medical science and public hygiene must continue to work on the assumption that it is in general a good thing to save the lives of babies. Consequently the infant mortality rate tends to vary inversely with the intelligence and progressiveness of a community.

Opportunity for life conservation. It is almost a statistical law that the younger the child the greater the opportunity for life conservation. At least one tenth of the total deaths at all ages, according to Newsholme, occur in infancy; one half of these infantile deaths occur within the first month, and one

fifth in the first week after live birth. This author adds:

> If therefore it were practicable to halve these early or neo-natal deaths, a greater saving of life could be obtained than by having the death rate at any other period of life of equal length. There is ample work for further preventive measures against infant mortality in the last eleven months of the first year; but the most fertile and least tilled soil is that of the neo-natal period.

Nowhere does the great object of medical science, namely, life conservation, come more completely to realization than in the constructive work in behalf of infants and young children. To save a baby means not only a temporary victory over the hosts of death. It may mean the contribution of a complete or nearly complete adult life to the strength of the Nation. The rewards of medical service, whether private, social, or philanthropic, are in this field extremely far-reaching. An adequate program of physical preparedness, whether for war or for peace, must in the nature of things place most stress on the pre-school period. The very quality of the recruits whom we train in school and camp depends first of all upon the attention we have paid to their pre-school years.

The curve of morbidity. This is as eloquent as that of mortality. Infancy is not only a period of physical helplessness, but it is to no small degree a period of biochemical helplessness against disease. The infant does not only have to learn to see, to grasp, to walk; but the very juices of his body have to acquire an organization against infection. To be sure, in the first

months of life his blood may still carry protective substances derived from the maternal blood stream that so recently was his very own. Children under six months, for example, rarely get the measles. But when these protective substances have been exhausted, or are not definitely inherited, his body must produce its own defense against bacteria, toxin, and fatigue. This biochemical defense is part of the struggle for existence which begins anew in every newborn infant. It follows, as Holt has said, that "the younger the patient the worse the prognosis in all the diseases of childhood."

Significance of period for preventive medicine. Yet there is no more promising field in medicine, as this same authority has recognized, than the prevention of disease in this very period. First of all, infections can in large measure be forestalled, delayed, or controlled. Secondly, the strength of the child to resist or to conquer disease can be safeguarded.

Successful reaction of his organism against infection depends primarily upon the nutrition of his protoplasm. Body maintenance, body growth, and immunization are all forms of metabolism, which are based on adequate food and proper feeding. Nutrition is the key to prophylaxis and often to cure. The rôle of nutrition in human welfare is always a great one; but it is of preponderant importance in the pre-school period.

With disease and defect reduced to a minimum, there remains a vast field of hygiene, both physical

and mental, which has to do with healthful habits of living on the part of the children themselves, and with wholesome methods of caretaking on the part of their elders. These problems are both medical and educational in character. Unfortunately, they do not solve themselves; but fortunately, infant-welfare work is coming more and more to include the personal hygiene of the pre-school child.

3. Psychological significance

Rapidity of mental growth. From the psychological and educational standpoint the conditions of the pre-school period are interesting and challenging. Legally, the pre-school child has no educational status in this country. Compulsory education does not begin to operate in most States until the age of six. The tacit assumption is that it is not an educational period at all. Psychologically nothing could be more erroneous than such an assumption. In a certain sense the amount of mental growth which takes place in the first sexennium of life far exceeds anything which the child achieves in any subsequent period. Indeed, it may be doubted whether all of his scholastic strides taken together bulk for as much as his brilliant advance from the stage of protoplasmic vegetation at birth to the mastery of physical and personal relations — language, art, and science — which he has attained when he first slings his school bag over his shoulder. This remarkable velocity of mental development parallels the equal velocity of physical growth during these early years.

The character of this mental development is by no means purely or preëminently intellectual. Almost from the beginning it is social, emotional, moral, and denotes the organization of a personality. The infant is not only acquiring perceptions and motor coördinations; he is acquiring attitudes toward things and persons, prejudices, inclinations, habitual preferences, inhibitions; he is incorporating modes of behavior which do not, of course, constitute a mature personality, but which psychologically are at the core of personality. On every level of behavior, the physiological, the sensory-motor, and the higher psychical, he is acquiring both healthful and unhealthful habits of activity. Though he may not learn to read in the pre-school years, he is mastering the alphabet of life. So potent are these fundamental lessons that this period easily becomes the soil of perversion, inefficiency, and distorted or curtailed development. It is natural that the new genetic psychology places great emphasis upon the influence of infancy over character formation. Psychoanalysis reveals significant instances in which unfortunate experiences in the first years of life were competent to produce developmental disharmonies resulting in abnormal adult behavior.

Importance of this formative period. The years of pre-school childhood are forgotten, but they do not ever completely depart; they are registered in the organization of the nervous system, and there they continue to dispose and to predispose the latter-day individual.

This is somewhat figurative language, but it is true to the modern dynamic concept of the mind which holds that every action is conditioned by previous action. Man is neurologically a bundle of neurone patterns, and psychologically a bundle of habits, complexes, and conditioned reflexes. The patterns and complexes which are first formed have a remarkable tendency to persist, particularly those which are highly colored emotionally and closely knit to instinctive tendencies.

Such considerations, though broad and general, point to the unique educational potency of the pre-school period.

4. Administrative aspects

From an administrative viewpoint the pre-school period presents a likewise interesting situation. During the last century a great body of legislation and administrative procedure have been built up to protect and fulfill the rights of children, but the safeguards have benefited chiefly the child of school age. There is a definite movement, both in this country and in England, to extend the rights of educational opportunity and full physical development well through the teens. The Education Act of 1918, in England, and recent laws in the United States, virtually extend the principle of compulsory education to the age of eighteen. Legally and adminstratively the social control of children below the age of six is much less advanced.

Lack of definite State policy. There are, of course,

very significant statutes in many States relating to birth registration, neglect, abandonment, employment of expectant mothers, inspection of milk, etc., which not only clearly reflect the growth of State regulation, but also reflect a tendency to transmute the infant from "well-nigh a thing, the object of rights, to a person, the subject of rights." Taken as a whole, though, the status of child welfare, and of educational agencies for pre-school children, indicates a lack of general State policy and a relative lack of standards and even of guiding principles. Nowhere are our social efforts more unrelated and piecemeal, or more at the mercy of unaided tradition. Nowhere does the curve of child care fall so low as in numerous nurseries, baby farms, and incompetent homes which retain almost complete control over their young charges, and which have not felt the quickening influence of child-labor and school-attendance laws. It is almost as if the super-mother State had said, "These tiny children do not have to work: therefore they may be neglected — at least for the time being!"

Historically there are many factors which explain, if they do not justify, the comparative official neglect of the pre-school period. One of these is the natural conservatism of social legislation. The rights of fathers were formulated before those of mothers, the rights of the rich before those of the poor, the rights of parents before those of offspring, the rights of legitimate children before those of children born out of wedlock. We need here simply to recall that

Robert Owen met bitter and irreconcilable opposition only a hundred years ago when he wished to establish ten as the minimum working age of factory children. No wonder the child of less than six must wait for the benevolence of the law.

Education conceived of as academic instruction. Educational science and philosophy have also shown some retardation in the recognition of infancy. Taken as a whole, the history of education shows a persistent tendency to place a disproportionate emphasis upon didactic instruction and academic accomplishment. The modern biological point of view, which shifts the emphasis to development and health, is after all a recent one which has not even as yet leavened the mass of educators and teachers. The ancient confusion of education with academic instruction will continue for some time to limit the welfare of the pre-school child, both in the home and in the community.

Another consideration, perhaps the most fundamental, which accounts for the present administrative status of pre-school-child welfare is the reluctance of the home to surrender its prerogatives. This is a healthy reluctance. If it did not exist, we should in a few years be developing a great glorified nursery for the pre-school children of the State. It has been seriously suggested that this is the natural goal of child welfare in this field. Instinct and good judgment, however, favor another solution — one which will strengthen the home and raise its efficiency.

New tendencies in legislation. It is very significant

that compulsory continuation education beyond the age of fourteen is laying increasing stress on civic instruction, and training for home and family life. If we consistently develop in our pre-marital youth, both boys and girls, a concrete education and a practical philosophy with respect to the vital problems of child care, we shall be attacking the administration of child welfare in the pre-school period from the most promising angle. The welfare of the pre-school child begins with his grandmother and with his parents. We need for these parents a new type of education, one which will deal more directly and sincerely with the problem of infancy. The systematic exploitation of the educational possibilities of the continuation-school period from fourteen to eighteen offers the most promising field for the improved control of the neglected pre-school period.

Social control over the pre-school period must be increased, but it need not be autocratically done. New legislation and administrative coördination of existing agencies, and new methods of regulation and supervision must be evolved, but our main reliance should be placed upon methods which will preserve the integrity and responsibility of the home.

CHAPTER II

THE GROWTH OF INFANT WELFARE AND CHILD HYGIENE

THERE are several ways in which the growth of infant welfare and the public hygiene of the pre-school child may be measured: (1) by the changes in the social attitude toward infancy and childhood; (2) by the increase and diffusion of knowledge concerning the health and development of children; (3) by vital statistics recording the birth and death of children; (4) by the evolution of laws and provisions for the protection of the mother and the child. A full discussion of any one of these items would require a treatise by itself. It may, however, be profitable to attempt a brief survey and a chronology, which will serve as a background for the subsequent chapters of this volume.

1. Old and new attitudes toward childhood. How the attitude of parents and of society toward children, ancient and modern, has modified in breadth, depth, and direction is a theme which it would take a super-Wells to adequately portray. An *Outline of the History of the Child in Human Culture* would have to go back to primitive days of arboreal and cave life. It would be extremely difficult to reconstruct, with psychological fidelity, the real attitude of our successive forefathers; but even fragments of the truth would be significant, because it is these very psychological

factors which have had and always will have a determining influence on the progress of child welfare. Such an outline of history would have chapters on Infanticide, Cannibalism, Child Sacrifice, Child Slavery — primitive-sounding titles, succeeded by more modern captions such as The Christian Doctrine of Child Depravity, Industrialism and Child Labor, Societies for the Prevention of Cruelty to Children, Infant Mortality, The Children's Famine in the World War, and The Purification of Milk.

Infanticide. This is an amazing practice which is found in almost every age and stage of human culture; among Papuans, Kaffirs, American Indians; Homeric Greeks, ancient Athenians, Romans, Franks; in modern India, and in modern China. In the case of twins the practice shows interesting variations; sometimes the weaker twin alone is killed; sometimes the pair; sometimes both mother and twins. Cannibalism may or may not be associated with infanticide. Economic motives may be at the origin of the practice, but custom, "superstition," and religious belief come in to fix and shape it. Laws and juries even may regulate it. Cruelty alone does not explain infanticide. It must be remembered that even to-day there are occasional returns, if not reversions, to an advocacy of this historic institution, but if the philosophy of democracy prevails it will never again be adopted. Children cannot select their parents. Parents, therefore, cannot be allowed to select their children. Birth carries an inalienable right to existence.

The doctrine of infant depravity. The Christian Fathers insisted that babies had souls, and, according to Payne, this idea more than any other reduced the practice of infanticide. But by the tragic ironies of theology these same Fathers, and the Lutherans, the Council of the Reformation, the Calvinists, and the Puritans, enunciated the doctrine of child depravity. The babies had souls, but "by their carnal conception and nativity" these souls "came into the world steeped in sin and guilt." From St. Augustine to Jonathan Edwards this gloomy doctrine was proclaimed and applied. Remnants of it were combated by the valiant pen of Charles Dickens.

It is not our purpose here to attempt an evaluation of these various attitudes and misconceptions. It would be very misleading, however, not to mitigate the story with facts of different hue. Take, for example, the infanticide of the Chinese. China is also notable for very fine and attractive expressions of family life. Infanticide in China has been comparatively rare in recent years. Dr. Bolt says, that in the face of starvation, it is reported to be increasing among 40,000,000 northern Chinese; but he also states that during six years of residence in the country he did not see a single typical case of rickets in China. "The absence of rickets and scurvy in China has been explained in various ways. Some of the factors to be considered are the universal prevalence and long-continued breast feeding; the comparatively open-air life of the Chinese children: the early introduction of

vegetable and fruit juices into the child's dietary; the freedom from native patent foods and the absence of the nursing bottles." Incidentally it should be mentioned that rickets is one of the most common disorders of pre-school childhood, in America as well as in European countries.

Christianity has contributed much besides the doctrine of innate depravity to our conceptions of children. The total influence of the New Testament has been to ennoble these conceptions, and through many forms of art and tradition the Church has lifted the race to loftier interpretations of childhood. The wealth of associations that have gathered about the Child in the manger have softened somewhat the hardness of man. In the music and sentiment of some of the old Christmas carols we have evidence of what the folk soul was able to achieve, even centuries ago, by way of homage to infancy. In these and many other ways, social inheritance has nurtured parental tenderness, and made possible the wider humanitarianism which underlies the child-welfare movements of to-day.

2. The increase of knowledge concerning children. Many of the past sins against "the historical child" have had the competent if not always justifiable excuse of ignorance. Harmful superstitions and traditions have had the same excuse. This ignorance has been due to a failure on the part of man to utilize the gifts of common sense, and his inability to maintain a scientific attitude toward the problems of life. Where the

truth has been attained by leaders of the race, there has often been a failure to diffuse it through popular education and methods of propaganda. Dr. Foote cites the reluctance of the English people, up to the seventeenth century, to use cow's milk in infant feeding as an illustration of this point. Progress in child care is still dependent upon the diffusion of wholesome information in simple matters, and in the deliberate extension and application of scientific knowledge of life.

In a very basic manner, then, the birth, health, disease, and death of children have been influenced by the growth of the fundamental biological and medical sciences. The major figures in the historical development of these sciences — Harvey in physiology, Vesalius in anatomy, Pasteur in bacteriology, Mendel in genetics, Darwin in biology, Liebig in chemistry, Jenner in medicine — have left an impress upon the fortunes of the children of to-day and to-morrow. These men, being geniuses of the first order, have guided and energized the activity of countless other men of science who, building on the accomplishments of their past, contribute to that cumulative mass of knowledge upon which civilization is reared, and on which infants and children are dependent. We are, perhaps, accustomed to give too much credit to the purely humanitarian leaders of history. It is the men of science, the engineers, the inventors, who bring about those fundamental changes in subsistence, shelter, clothing, intercommunication, sanitation and

vitality which multiply and improve human relations. Assuming a working capital of humanitarianism, the progress of child welfare will depend upon the acquisition, application, and diffusion of ascertained truth.

The most obvious illustrations of this fact are in the field of preventive medicine. Smallpox in the eighteenth century was one of the scourges which helped to cheapen the value of an infant. One out of every five children born died of smallpox before the tenth year; one third of all the deaths of children were due to this cause (Holt). Vaccination, one of the most remarkable discoveries in the history of science, conquered this scourge.

Diphtheria offers a contemporary illustration. The calculated yearly mortality from this disease in the United States is from 20,000 to 22,000; and the morbidity from 150,000 to 200,000. With the introduction of anti-toxin the mortality has been reduced from 70 or 75 per cent to 10 per cent. Every case could be cured if the anti-toxin could be applied early enough; every case could be ultimately prevented if we could universally produce active immunization through the administration of toxin-anti-toxin to those children who by the Shick test show susceptibility to the disease. The most favorable age for this prophylactic procedure is from six months to two years. The further control of this dread disease is a problem of pre-school hygiene. Scientific knowledge awaits its judicious application.

As with infectious disease, so with rickets, nutrition, orthopœdic abnormalities, nervous disorders, and mental defects, scientific research alone will point the true way to prevention, cure, and management.

Science does not, however, automatically remedy the ills of childhood. The facts must be assimilated and applied, often in very personal situations. A vitamine may be discovered; it may be located in the juice of the tomato; but the juice must go into the baby's mouth (and further) to accomplish its prophylactic purpose. In other words, we must also reckon with personal relations. We deal not only with the substantive facts of biochemistry and immunology; but with the behavior of human beings — babies and parents. Here is a vast field for analytic and applied science. Psychology is the science of behavior. The future growth of pre-school hygiene, both physical and mental, will see a more deliberate use of this great science to solve the behavior problems of child development and of child care. Through applied psychology, society can not only increase its knowledge of social problems, but its control over them.

3. Vital statistics and child hygiene. If we had a complete set of vital statistics dating from primitive times, we could trace the growth of infant welfare and child hygiene with great accuracy. Needless to say no such data are available. Even in our own enlightened country we are to-day without an adequate system for the registration of human births. We do not appreciate how vital, for child welfare, vital statistics are.

"Vital Statistics" has been called the Cinderella of modern public hygiene. "She sits in the chimney corner and sifts the ashes of dusty figures, while her proud sisters, Bacteriology and Preventive Medicine, go to the ball and talk about the wonderful things they have done." Dr. Newsholme, however, has gone so far as to say that in England public-health progress has been largely actuated by records of mortality, and he quotes with approval Dr. Fulton's statement that "every wheel that turns in the service of public health must be belted to the shaft of vital statistics."

It is now recognized that the vital statistics of a country, county, or city constitute a sensitive index of the social status of the inhabitants. This is particularly true of the figures which relate to the birth and death of infants. The infant mortality rate is the number of infants dying under one year of age per thousand infants born; while the birth-rate represents the number of infants born per thousand of the whole population. In nearly all modern nations there has been, during the last two generations at least, a decline in these two rates. The figures for England and Wales for the period from 1890 to 1919 are shown below:

Year	Infant Mortality Rate	Birth-Rate
1891–1895	151	30.5
1896–1900	156	29.3
1901–1905	138	28.2
1906–1910	117	26.3
1913	107	28.0
1916	91	21.6
1917	97	17.8
1918	97	17.7

Statesmen who are interested in soldiers and industrial laborers, and public-health leaders interested in national vitality, sense the import of these vital statistics. Newsholme believes that "among the outstanding events in the medico-sociological history of the last fifty years a foremost position must be given to the steady decline of the birth-rate which has occurred in most civilized countries, and to the increased attention devoted to the welfare of infants and their mothers." The various factors in this new situation have reacted on each other. The lower birth-rate has given the fewer babies born a better competitive chance in the struggle for survival, the declining birth-rate has stimulated governmental grants-in-aid for maternity and child hygiene; this hygiene has been further reënforced by higher wages and better standards of living. More money is being invested in babies; babies are worth more.

Lowering the death-rate. Turning to the past we find that excessively large families and an excessive death-rate operated to depreciate the value placed on infant life. Although the beginning of vital statistics may be dated back to 1538, when Henry VIII ordered parishes to register all christenings, weddings, and funerals, complete records were not kept until a much later time. From the tombstones of eighteenth-century graveyards, and from the leaves of diaries and biographies, some glimpses can be caught of "the profuse waste or imperfect workmanship of Nature." Holt, in an interesting historical sketch of this subject

says, "At this time, the latter half of the eighteenth century, we are warranted in stating that the infant mortality generally was over one fourth of the total mortality, and the mortality under five years over half the total mortality." The emphasis on pre-school hygiene might well have begun in that age, but Black, writing in 1782, states that in Great Britain during the latter half of the seventeenth century there were only three men who gave any special attention to the diseases incident to young infants. "Up to this century the management of these tender creatures in sickness was left to ignorant old nurses and rude quackery. Even at present the bills of mortality, in cities especially, are a melancholy proof that the carnage made among the young part of the human species has not yet attracted the attention of medical writers." (Quoted by Holt.)

Differences between cities and nations. A century and a half has elapsed since the above was written, and the new "bills of mortality" show that real progress has been achieved. London and New York City, two of the largest cities in the world, in 1920 had an infant mortality rate of 76 and 84 respectively. In the same year the rate for 51 cities in the United States birth-registration area, all having a population of over 100,000, was 90. In 1916, the rate was 101. In the year 1921, the rate has fallen to the remarkably low figure of 74, according to a preliminary statement of the Bureau of the Census. The lowest rate reported for the registration-area cities were Seattle, Portland,

Oregon, St. Paul, 47; San Francisco, 48; New Haven, 59; Yonkers, 61; and Bridgeport, 64. If the preliminary rate of 74 holds good for the whole United States, it means, according to Dr. Van Ingen's calculation, that nearly 40,000 babies were saved in the year of 1921. We are beginning to realize the slogan of Children's Year.

America has not, however, attained a world record. According to figures issued by the Registrar General of England and Wales (for the third quarter of 1921), Christiania, with an infant mortality rate of only 33, has the lowest rate of any city in the world. Amsterdam comes second with a rate of 42, Stockholm and Copenhagen follow with 47 and 48. Bombay trails near the end with 630. New Zealand has for years maintained a favorable rate. Six foreign countries have a lower infant mortality rate than the United States; but in the matter of maternal mortality our position is still less enviable, for our rank is 16 in a group of 17 countries. We have a higher maternal death-rate than any other of the principal countries except Spain or Switzerland. In the United States, in 1920, one mother died for every 135 babies born. Whereas in other countries there has been a decrease in the death-rate from child-birth, the rate in the United States has perceptibly risen in the period from 1915 to 1920.

Death-rate correlations. Not only do vital statistics reveal differences between cities, states, and nations, but they bring into focus correlations that would other-

wise escape our attention and perhaps our solicitude. For example, in Pittsburgh as a whole there was, in 1920, a loss during infancy of one life out of every 9; but the rates varied enormously for different parts of the city. In the most favorable ward it was 64 deaths (per 1000 births); in the less favorable it was 157. The relations of infant mortality to income and, in a measure, perhaps to intelligence, were shown in comparative studies made by the Children's Bureau. In Waterbury, Connecticut, "the mortality rate for children born in rear houses or houses on alleys was 172, while the rate for children born in houses located on the street was 120.6. The study in Manchester, New Hampshire, showed the infant mortality rate to be 123.3 where the persons in a room averaged less than one, and 261.7 where they averaged two, but less than three." When low income drives mothers outside the home for employment, the mortality rate for babies apparently more than doubles.

Vital statistics, like any other statistics, need careful interpretation; but they are indispensable for the appraisal as well as guidance of public-health work. The last decade, in particular, has shown that the infant mortality rate was not fixed by God, but will yield to the pressure of child-welfare and child-hygiene enterprise. Not only is public health purchasable, but with proper bookkeeping the transaction is written on the public ledger of vital statistics.

4. State protection of children. The modern improvement in the status of children finds its official

and in many ways its most significant expression in public laws and tax-supported provisions. Indeed, before the last century the child scarcely had a legal status. Sophonisba Breckinridge notes that even "under the common law the child was peculiarly devoid of rights." "The recognition of the child as the subject of rights toward whom legal as well as natural and moral obligations could be formulated and enforced rather than the object of practically unlimited and unrestrained parental and especially paternal rights, underlies much of the most modern legislation and most important organization."

An impressive series of child-protective laws and judicial decisions has accumulated during the nineteenth century, and is continuing with momentum into the twentieth. In 1811, the Decree of Napoleon declared that the unprotected infant was a charge on the State. The Factory Acts of 1815 in England gave a measure of protection to the children in the mills, and established the principle of State responsibility for child welfare. In 1837, a compulsory birth-registration law, followed, in 1907 and 1915, by the notification-of-births acts, were of great importance from the viewpoint of the child-hygiene movement. Massachusetts, in 1842, passed the first American child-labor law, and in 1852 the first compulsory-education law. In 1872, England passed the Life Protection Act providing for the registration, licensing, and supervision of infant-caring institutions. This has been called the first legal effort to diminish infant mortality. America,

in 1912, created by law a broad governmental agency in the interest of children of all ages — The Federal Children's Bureau. The Maternity and Child-Welfare Act of 1918 (England), the Fisher Education Act of the same year, and the Federal (United States) Maternity and Infancy Law of 1921, are notable acts of legislation which clearly indicate the changing status of the pre-school child. For still other acts and measures of social control, the reader is referred to the chronology given in Appendix A.

Early institutional work. In the matter of creating actual provisions for needy children we find that private initiative and philanthropic and religious organizations are in advance of official State action. Thus Saint Vincent de Paul founded the first permanent asylum for children as early as 1648. At about the date of our Declaration of Independence, Oberlin in France and Pestalozzi in Switzerland began their educational work with young children. In the second decade of the nineteenth century, Robert Owen originated his infant schools in England, and Froebel the kindergartens in Germany. Both institutions spread to America. In 1844, France established a day nursery in Paris. In the sixties, the pioneer agencies for maternal nursing and home visitation were organized in France and England. In 1889, the first milk dispensary was opened in New York City.

In many respects, however, the most notable event of all was the establishment, by Dr. Budin, in 1892, of the first Infant-Welfare Center (*Consultation de Nour-*

rissons). It was a simple but practical conception — a consultation center for the examination of babies and the instruction of mothers in child care. This idea has spread the world over, and infant-welfare centers can now be found in Alaska, Australia, China, Mexico. They have multiplied at an almost phenomenal rate during the last few years in England and America, and still have unlimited possibilities of growth and elaboration. Ambassador Jusserand, speaking at the first annual meeting of the American Association for the Study and Prevention of Infant Mortality, in 1910, said: "When its far-reaching results shall have been gauged, France will be as proud of Dr. Budin, for his good work, as she is even of the discovery of the most startling inventions made by any of her sons in the realm of science or industry." The Ambassador spoke even better than he knew; for the victories of France at war were in some measure dependent on the conservation of infant soldiers.

Influence of the World War. Happily, the World War has had a stimulating rather than depressing effect upon child-welfare activity, particularly that basic activity which is concerned with the physical well-being of the child. Even in the most war-ridden districts, partly as a reflex of their very misfortunes, the germs of permanent infant-welfare and child-hygiene work have been planted. For example, in 1921, the chairman of the American Red Cross in Europe reported the appropriation of $5,000,000 for the establishment of child-welfare units; and that

twenty units were speedily put into operation, three in Montenegro and most of the others in Poland, with a minimum of a hundred units in view. These are not primarily relief units, but a device for initiating and spreading permanent child-welfare work, with medical, nursing, and social features.

Since 1914, England has been making grants, out of Government funds, of fifty per cent of approved expenditures for infant-welfare work by voluntary, city, and county agencies. These grants-in-aid have totaled into the millions, and cover every form of child and maternity welfare. France subsidizes similar work to the extent of twenty per cent, and, in 1918, appropriated 650,000 francs for infant welfare, and 3,000,000 francs for nursing premiums and maternity benefits. In Austria and Germany there have been marked new developments and extensions of child-welfare work. In 1919, the Belgian Chamber passed a bill creating a national children's bureau, and providing a fifty per cent subsidy for the continuance of the infant-welfare and maternity work brought into being by the stress of war. Thus the War has had in Europe a paradoxical result on child life. It has caused untold suffering and irreparable hardship to millions of children; it has given new rights and gifts to millions more.

Recent developments in the United States

We pass now to a brief review of the pre-war status and the recent developments of pre-school hygiene in the United States.

1. The pre-war status of infant welfare and child hygiene. The pre-war status of infant-welfare work by public and private agencies in the United States was summarized in a tabular statement issued by the Children's Bureau, in 1916. Even then the chief of the Bureau noted that the extent of the movement to protect infant life was nation-wide, and that a revolution was taking place in the attitude of physicians and social students.

As shown in the statement of forty-eight State Boards of Health, all except four reported that definite attention was given to infant-welfare work. Only four States, however, had at that time organized distinct departments of child hygiene. Work for the improvement of the registration of births and deaths was reported by thirty-six States. The New York State Department of Health sent out a traveling exhibit to stimulate communities to organize infant-welfare stations in city and rural districts. The exhibit was viewed by 1,300,000 people. The extension divisions of thirty-one State Colleges and universities reported similar educational activity through lectures, motion pictures, exhibits, demonstrations, courses, bulletins, etc.

Of 555 city health departments in cities with a population of 10,000 and over, 134 reported no infant-welfare work, and 255 nothing except milk inspection. Twenty cities reported distinct divisions or bureaus of child hygiene, as branches of municipal departments of health; twelve of these were in cities with a population between 100,000 and 500,000.

Infant-welfare work by both municipal and private agencies was reported under six headings. The facts are easily summarized, and give a convenient picture of the situation.

Infant-welfare stations. These are of four kinds: (*a*) Stations which do not dispense milk, but to which mothers may bring their babies for examination by doctors or nurses, and which send nurses into homes to instruct mothers in the care of the baby, home modification of milk, etc. (*b*) Milk stations where a good quality of milk is dispensed, either free or at the prevailing price, for the use of mothers who are unable to nurse their babies. (*c*) Feeding clinics, established by certain hospitals. (*d*) Health centers, which carry on educational work in a prescribed neighborhood, and which deal with health and other problems affecting not only the baby but the entire family.

Infant-welfare nursing. Inquiries were sent to these organizations which were understood to specialize in this work. The total number of cities reported as carrying on infant-welfare work, by municipal or private agency, either through stations or through nurses not connected with stations who visit mothers in their homes, was 28 per cent. There were 926 infant-welfare nurses not connected with stations who were employed in summer, and 613 in winter. Nurses are playing an important part in the prevention of infant blindness; 251 agencies in 181 cities report such work on the part of nurses.

Pre-natal work. This work was interpreted to in-

clude "the care and instruction of prospective mothers in the hygiene of pregnancy, by doctors and nurses attached to infant-welfare stations and obstetrical clinics, and by nurses not attached to stations who visit mothers in their homes." No attempt was made to address all hospitals and clinics. The number of cities reporting pre-natal work as carried on by departments of health or by private agencies was 186; the total number of agencies reported was 286, representing all sections of the country. The number of nurses reported as giving their entire time to pre-natal work was 45; the number giving part time was 893. This number is small enough considering the needs of a whole nation, but it is also large enough to indicate the growing recognition of the importance of maternal hygiene in relation to infant-welfare work.

Classes for instructing young girls in infant hygiene. Under this heading were included classes in infant hygiene for girls of school age, either as a feature of the school curriculum or as an activity carried on outside of school hours by the health authorities or by private agencies. There were forty-four cities of 10,000 population and over which conducted such classes as a municipal activity. The number of girls annually instructed was over 48,000. In addition, there were some seventy-five private agencies who conducted similar work through lectures, demonstration, etc.

Milk inspection. Of 599 cities addressed by the Children's Bureau, 410 replied that milk inspection was carried on. Of 298 cities which furnished specific

information, 240 reported country milk inspection; 228 use score cards to score dairies; 98 score also stores selling milk, the card used by the Department of Agriculture or a modification of that card being the form most frequently used; a bacteriological standard is enforced in 176 cities; a pasteurization ordinance is reported by only 43 cities.

Baby-week campaigns. We may include in this résumé a summary account of the nation-wide Baby-Week campaign of 1916, held under the joint auspices of the Children's Bureau and the General Federation of Women's Clubs. Historically this interesting movement goes back to a Baby-Week inaugurated in Chicago, in 1914, and to similar events which were celebrated in New York City, Pittsburgh, Indianapolis, Topeka, and Grand Rapids. In the fall of 1915, the plan for a similar campaign, national in scope, was announced. March 4 to 11, 1916, was the appointed week. This developed into a typical American event, and foreshadowed in its way the more solemn drives and campaigns which were to be so frequent during the World War.

This nation-wide baby-welfare campaign had the public endorsement of President Wilson, the Secretary of Labor, and many governors and mayors, to say nothing of the very valuable aid of newspapers, journals, and cartoonists. The United States Reclamation Service, the Commissioner of Indian Affairs, the Public Health Service, the Office of Home Economics of the Department of Agriculture, the National Congress of

Mothers and Parent-Teacher Associations, universities, colleges, churches, and numerous civic and child-welfare organizations coöperated in a manner to make the effects of the celebration far-reaching.

The number of local communities which held campaigns, which were afterward reported to the Children's Bureau, was 2100; but this number is far below the total actually held. Of fifty cities having a population of over 100,000, only three failed to report celebrations; seven hundred were reported from small villages or rural districts. This is a remarkably good showing, considering that the total number of incorporated cities, towns, and villages in the United States is reckoned at 14,186.

The Baby-Week programs varied with different communities. The features ranged from the scientific to the picturesque and dramatic; they included baby Sunday, fathers' day, birth-registration day, baby parades, demonstrations, exhibits on baby care, baby-health conferences, baby competitions, posters, plays, pageants, slogans, leaflets, cards, tags, a special Baby-Week literature, baby-improvement contests, motion pictures, and follow-up work.

2. The war and after. The remarkable popularity of the National Baby-Week was an encouraging augury for those who were interested in improving and organizing the hygiene of infants and young children. Progressive legislation and the successful reduction of infant mortality in many communities, both at home and abroad, had added promise to the outlook. Then

came our entrance into the War, and a vague fear that much would be undone and much would be delayed in all the fields of child welfare.

The Children's Bureau early concluded that "it could offer no more valuable contribution to the country during the War than to assist in stimulating and coördinating public and volunteer effort for child welfare, and to put its experience at the service of the Council of National Defense and other agencies undertaking work in behalf of children."

The Children's Year campaign. In this spirit a Children's Year campaign was formally inaugurated, on April 6, 1918, the beginning of the second year of this country's participation in the War. The program included the protection of children of all ages, but its results were particularly important with reference to the hygiene of pre-school children and their mothers.

The Children's Bureau and the Child Conservation Section of the Council of National Defense issued a public appeal. The response of the country was genuine and almost unanimous. At the close of the Children's Year in 1919, all but two States were participating in the program. It is estimated that at least 17,000 committees were organized, with a total membership of 11,000,000 women. Cities, hamlets, and remote country districts everywhere were soon displaying placards announcing the Weighing and Measuring Test for children of pre-school age. The height and weight were duly recorded on score cards, which were sent to the office of the Children's Bureau, a duplicate

record with height and weight standards being retained by the parent or agency. In all, 7,606,303 such cards were distributed! Not all of these were used, but the number of pre-school children measured and weighed was at least impressive enough to suggest the examination of the recruits for the army, and the possibility of preventing many of the physical defects of adult years. In many cases a complete physical examination was added to the measuring and weighing. In one State, California, 40,000 such examinations of pre-school children were made, and the tabulations showed 47 per cent correctible physical defects.

Results of the war work. As a result of the findings, seventeen permanent county health centers were established in California, in ten counties health nurses were employed, and a division of child hygiene under the State Board of Health was also established by law.

A similar impetus from the Children's Year seems to have been felt in many parts of the country. Before the announcement of the Children's Year campaign, only nine States had child-hygiene divisions; in 1918, four more were added, and in 1919, nineteen more were added; so that in May, 1920, the total was thirty-two States. The directors of these State Bureaus of Child Hygiene have formed a national organization to coördinate their efforts. New public health nurses and children's health centers have been reported from twenty-four States. Twenty-nine new health centers were started in one year in the city of New Orleans.

A statistical summary of present infant-welfare

activities, similar to that given for the pre-war year of 1915, would show significant gains. The pre-school child in particular has gained a large measure of benefit from the War. We are becoming more systematically concerned about his health and development than ever before.

When President Wilson wrote his public approval of the Children's Year campaign, he said, in a letter to the Secretary of Labor:

> I trust that the year will not only see the goal reached of saving 100,000 lives of infants and young children, but that the work may so successfully develop as to set up certain irreducible minimum standards for the health, education, and work of the American child.

Formulation of minimum standards. To what extent the slogan, "Save 100,000 Babies," has been realized, it is difficult to estimate, but the formulation of minimum standards for child welfare has been achieved. In May, 1919, a notable conference of experts both from abroad and from this country was held under the auspices of the Children's Bureau. As a result of this conference, and of eight regional conferences held in New York, Cleveland, Boston, Chicago, Denver, Minneapolis, San Francisco, and Seattle, a brief but important statement of child-welfare standards was drawn up. This statement, as published by the Children's Bureau (see Appendix B), is the culminating contribution of Children's Year.

The standards cover, among other things, the fundamental needs of maternity and infant care and the hy-

giene of the pre-school child. Some of these standards are now being written into Federal law. Of special significance is the Sheppard-Towner Maternity Bill, passed by Congress in 1921. The minimum standards relating to the pre-school child, and also a summary analysis of the provisions of the Sheppard-Towner Law, are to be found in the Appendix of this volume. The chronology in Appendix A gives a suggestive review of significant events in the field of pre-school hygiene, since the close of the eighteenth century.

Incomplete as the above survey is, it carries convincing evidence that the social concern for the pre-school child has grown into a veritable movement. We have every reason to believe that a coördinated series of safeguards and opportunities is being developed which will give the pre-school child a new place in our educational system and a new importance in community hygiene and national welfare.

CHAPTER III

NURSERIES AND NURSERY SCHOOLS

THE term "nursery" carries with it many meanings. It variously suggests the children's room at home, a residential institution for children without a home, a day home for babies with one or both parents working, and more recently the appellation, "nursery school," has come to suggest a place where mothers with and mothers without limousines may leave a child of pre-school age. Nurseries vary so widely in their merits and their organization that it is difficult to develop any generalizations in regard to them, but the nursery as a social institution bears such important relations to the welfare of young children that we should attempt to estimate its true place in a program of hygiene for the pre-school child.

1. The functions of day nurseries

Relation of the nursery to the pre-school period. The Washington Conference of the Children's Welfare Standards, held in 1919, under the auspices of the Children's Bureau, included a discussion of the nursery in relation to the care of the pre-school child. This discussion was so authoritative and pointed in character that it reveals in a true light the difficulties and implications of the nursery problem. It will serve our purpose to quote pertinent passages from the report

of the discussion, which is printed in full in Bureau Publications No. 60.

Dr. S. Josephine Baker, Director, Division of Child Hygiene, Department of Health, New York City, said:

It cannot be claimed that the day nursery as at present constituted is a predominant factor in the care of the pre-school age child; but its possibilities are almost unlimited. . . . In the United States there are no universal standards at the present time. . . . Day nurseries should be maintained under proper and competent supervision, which can best be carried out by governmental authorities. . . . Standards for day nurseries must take cognizance of the construction and equipment of the building in which the day nursery is to be located; the provision of the necessary rooms and their proper furnishings; general hygiene and maintenance of nursery routine; medical supervision of the children for the purpose of controlling epidemic diseases, as well as the prevention of disease in general and the correction of existing physical defects; and general physical care, including rest, exercise, and proper diet. In addition, the day nursery must offer to children of the two to six age group some mental and social training.

The development of properly supervised day nurseries or nursery schools for children under six years of age may well be considered as an important contribution to the solution of our present problem as to how to care for the child of pre-school age.

Miss Myra Brockett, of the Mary Crane Nursery, Chicago, said:

The object of day-nursery effort is fundamentally to raise the standard of home and family life, and follow-up visits to the home will readily reveal whether or not the nursery service is helping to accomplish this result. . . . Dr. Baker's recommendation of home visiting is a recognition of the fact that effective service to the child must be based upon a knowledge of his home environment, and that the family rather than the individual child must be made the unit of effort.

Mrs. Eleanor Barton, of the Women's Coöperative Guild, of England, said:

I am going to take an entirely opposite point of view from that which has been given you this evening. I am absolutely opposed to day nurseries. I think that day nurseries are part of the great industrial problem.

. . . Why not spend your money on the mother? Why not give it to the mother, and let her stay in her own home? We in England at the present time are discussing some of these problems. We are discussing family endowment, which, it seems to me, will solve the problem of these children.

I am against day nurseries, because I do not think we should send our women out of their homes to go into industry. I am not against day nurseries when they are necessary.

Dr. Clothilde Mulon, of the French War Department, said:

. . . I perfectly agree with Mrs. Barton that mother and child must not be parted. And it is for that reason that we have nursing rooms. But if the mother is obliged to work, what can we do?

We have nursing rooms, not only for factory workers, but for shop-girls. We have a charming nursing room now in one of our biggest shops, on the roof, and the babies there are beautiful. Before it was established, those girls were obliged to send away their babies, and the babies died.

Dr. Jessica B. Peixotto, of the University of California, at Berkeley, said:

I venture to speak because I come from the State of California, which is, I think, one of the few States that license day nurseries. . . . I take emphatically the position of Mrs. Barton, and when I went on the State Board of Charities I resolved to see that something was done so that day nurseries should not grow in our State. . . .

As an entering wedge between the practice of kindly, friendly, cordial care of other people's children, which is the ideal of the day nursery, and the idea which I share with Mrs.

Barton of abolishing the day nursery as fast as possible, it seems to me that it would be of great benefit to require every case in a day nursery to be treated, exactly as a case in any other type of relief. That is, a definite inquiry into home family conditions so that an adequate living wage is received.

Mrs. Julia C. Corcoran, of the Factory Inspection Department, of the State of Connecticut, said:

. . . I am very much opposed to the industrial nursery, although I am afraid it has come to stay, unless you work to secure mothers' pensions or State aid for widows, and even then there may be day nurseries, because there may be women who will not accept the pension, but will go out to work.

Miss Lydia Burcklin, of the Friendship House, Washington, D.C., said:

I think the fact that we have had practically no standards for our day-nursery work in this country is giving some worthwhile work a bad name. I have been connected with a day nursery for ten years. We have never taken a child from its home when there was any other possible plan. . . . I am sorry to say that day nurseries are a necessary evil in our present state of social development.

Nursery undeveloped in America. There is as yet in America no solid body of opinion regarding the functions and the future of the day nursery. Social workers, parents, educators, and physicians have numerous and divergent views on the subject; standards are very uneven in different communities and often in the same community, and too often standards do not appear to exist at all. The nursery never comes under educational supervision, and only sometimes under compulsory medical supervision. Only in a few States are nurseries controlled through li-

censes and inspection. In short, the day nursery is far from being a commonly accepted official agency of child hygiene in this country.

2. Nurseries and nursery schools in England

Nursery control in England. In England the situation is somewhat different. There both day nurseries and nursery schools are eligible for Government grants-in-aid; and come definitely within the scope of governmental control. Significantly enough, this control is both medical and educational. The day nurseries (or *crèches*) come under the supervision of the Ministry of Health, and the nursery schools fall under the Board of Education, in accordance with the Education Act of 1918. Both of these governmental bodies have issued rather detailed regulations setting forth the purposes, standards, and arrangements of nurseries and nursery schools, in accordance with which grants of State aid are made.

A few excerpts from the memoranda of regulations will indicate the official status of both nursery and nursery school.

(*a*) *Ministry of Health memorandum in regard to day nurseries* (1919):

> Day nurseries are intended primarily to provide for the care of healthy infants and young children whose mothers are obliged to engage in daily work which takes them away from their own homes or who are temporarily in distress; it is not intended to encourage the establishment or maintenance of day nurseries for children who do not come within any of the above categories.
>
> Day nurseries are most suitable for children under three

years of age who mainly require special physical care and attention. Infants under nine months should not as a rule be admitted. Children over three years of age should attend a nursery school instead of the day nursery whenever this is possible. If it is essential for them to remain at the day nursery, every endeavor should be made to provide for training in good habits and personal hygiene, and to accustom the children to help themselves and one another as much as practicable. When there are fifteen or more children over three in regular attendance at a day nursery, a teacher having kindergarten or nursery-school experience should be engaged.

Day nurseries ought not to provide for children whose mothers might reasonably be expected themselves to bestow on them the necessary care and attention.

In some districts, homes have been established for children under five whose parents are temporarily unable to keep them properly in their own homes, and such institutions may be found more suitable than a day nursery for the retention of (such resident) children. Neither a home for children nor a resident day nursery should be regarded as affording a satisfactory permanent home for children under five, who should be brought up in circumstances approximating as closely as possible to home and family life.

(*b*) *Board of Education regulations for nursery schools; prefatory memorandum* (1919):

A nursery school or class is an institution providing for the care and training of young children aged from two to five years, whose attendance at such a day school is necessary or desirable for their healthy physical and mental development. It has therefore a twofold function: first, the close personal care and medical supervision of the individual child, involving provision for its comfort, rest, and suitable nourishment; and, secondly, definite training, bodily, mental, and social, involving the cultivation of good habits in the widest sense, under the guidance and oversight of a skilled and intelligent leader, and the orderly association of children of various ages in common games and occupations.

It is much more than a place for "minding" children.

The need of nursery schools is greatest in the more congested areas of the large towns. The influences which an adequate supply of efficiently managed nursery schools could exercise upon both children and parents in such areas can hardly be overestimated.

The English nursery-school law. These memoranda indicate that governmental policy with respect to the nursery problem is more clearly formulated in England than in America. They make a significant distinction between the *crèche* type of day nursery and the nursery school; and definitely recognize the educational function of the latter. Indeed the leaders of the movement see in the new nursery-school law a practical venture on a national scale; and a decision to make the nursery school the very foundation of England's system of education. The basic legislation is contained in section 19 of the justly celebrated Fisher Education Act of 1918, and reads in parts as follows:

The powers of Local Education Authorities . . . shall include power to make arrangements for supplying or aiding the supply of nursery schools (which expression shall include nursery classes) for children over two and under five years of age, or such later age as may be approved by the Board of Education, whose attendance at such a school is necessary or desirable for their healthy physical and mental development. . . .

Although this provision is not compulsory, it nevertheless opens far-reaching possibilities, and is of unique historical importance. Fundamentally it is a product of the health movement which grew out of the World War, and represents a determination to reduce an alarming amount of physical defect through preven-

tive pre-school measures. The law may also be regarded as an offset to the formalizing and unhygienic tendencies of the present infant schools, and a recognition of the value of the progressive type of work of such pioneer nursery schools as that of the Macmillan sisters. Dr. Grace Owen points out that the nursery school was definitely foreshadowed ten years before the Fisher Education Act, in the recommendations of the Consultative Committee of the Board of Education, published in 1908. The following passage from the Committee's Report bears out her statement:

> The evidence brought before the Committee showed clearly enough: (1) That the infant schools of the time were unsuitable for very young children, both as regards hygienic conditions and mental occupation. (2) That, nevertheless, large numbers of children would be left all day uncared for or unsuitably "minded"; if they were not allowed to come to school before the age of five.

3. The historical origin of the nursery school

History of the nursery school. The beginnings of the movement can be easily sketched in outline. We do not trace it back to Pestalozzi, because, although his methods of instruction were to have a marked influence on nursery education, he himself was most intent upon keeping the training of young children in the home, under the responsibility of the mother.

Jean Frédéric Oberlin, pastor, philanthropist, and educator, established the first Infant School, in 1774, as part of an effort to offset the ravaging effects of war upon the fortunes and morale of his people in the

village of Walbach, France. These schools assembled infants and young children and attempted to teach them the three R's, but the program also included manual activities, outdoor walks, plays, and games. These schools led to the establishment of the first French *crèche*, in 1801, which in turn led ultimately to the establishment of numerous infant schools all over France. These soon received State recognition and inspection; and, in 1848, became establishments of public instruction under the name *école maternelle*. Every commune of over two thousand inhabitants must have such a school, which may be attended by children from two to six years old. The *école maternelle*, like the infant school in England, has shown a tendency to over-emphasize formal instruction and to neglect hygienic nurture.

The English infant school. This goes back to the very beginning of the nineteenth century. Robert Owen, in 1800, opened at Lanark, Scotland, a "New Institution," to which toddlers and runabouts were admitted, "to form their dispositions to mutual kindness" and to teach them "whatever might be supposed useful that they could understand." Although it was Owen's expressed intention that "the children were not to be annoyed with books," the infant schools soon began to copy the ways of schools for older children and to stress formal instruction and discipline. This tendency was not altogether overcome by the introduction of Froebelian ideas in later years.

When the infant-school idea was transplanted to

America, in 1816, it represented a formalized method of teaching the three R's. The first school was established in Boston, and the first Infant School Society was organized in New York, in 1827. This was also the date of the first Infant Sunday School (Episcopal), to be founded in this country. The movement spread generally throughout the Eastern cities, and in time led to the organization of public provisions for primary education. It had little permanent influence on the education of the pre-school child in America, though this country was later on to become the foster home of the Froebelian kindergarten.

The kindergarten. This was first introduced into the United States in 1855, and has had a notable development with us. It bears such important relations to the present problem of nursery education that it will be reserved for special treatment in the following chapter. Founded through the labor and vision of Friedrich Froebel, in the second and third decades of the nineteenth century, it has followed a rather independent course of growth, but has profoundly influenced other educational agencies and our relations to young children. Historically the kindergarten has accomplished much; it may have an equally important rôle in the future in solving the complicated problems of pre-school education and hygiene.

Dr. Maria Montessori's work. The much-heralded "Houses of Childhood" were a venture into the field of nursery education. They originated as nursery schools, established as part of a model tenement enter-

prise in Rome, in 1907. "Let us," said the founder, "place the school in the home; not only that, let us place it there as a collective property, and let us place under the eyes of the parents the entire life of the teacher, in the accomplishment of her high mission." The *Casa dei Bambini* was an experiment in the "socialization of the maternal function." It kept its children eight hours or more each day under the socialized maternal control of professional trained directresses, with physician and caretakers assisting. The daily program included so-called exercises of practical life, such as washing, dressing, dusting, sweeping; gymnastic exercises, singing, dancing, rhythm work, speech training, luncheon, serving luncheon, playing in the garden, and sleeping. With the aid of some 1100 pieces of auto-sensorial didactic apparatus, children from four to five years old learned to write and read and cipher with the facility of children of the second and third grades.[1]

This graded sensory and didactic material captured the attention of the public, and was adopted in different countries the world over. In many minds it became synonymous with "the Montessori Method," although actually the Montessori idea was a socialized type of pedagogical nursery, which could be adopted only by making fundamental social and architectural adjustments such as characterized the original *Casa dei Bambini.* The didactic apparatus was sold in large quantities, both in this country and England, and

[1] See Gesell: *The Normal Child and Primary Education,* p. 323.

was introduced into existing kindergartens and infant schools; but without fundamentally altering either their organization or policy. Many of the so-called Montessori schools which opened in the United States were merely more or less progressive kindergartens, with the additional paraphernalia of Montessori apparatus, and with a partial application of her pedagogy; only rarely were they true nursery schools.

What the nursery school may be. The present wave of renewed interest in nursery schools in America has had its origin in recent developments in England, which have already been referred to. Miss Grace Owen, in her book on *Nursery School Education*, and Miss Margaret McMillan in a book on *The Nursery School*, have described some of the accomplishments and still more the hopes of the new English movement. Miss McMillan calls the nursery school a new departure "which is distinct in aim and method from all that went before." Miss Owen, however, seems to regard it as part of the post-war health movement, and as a means of transforming the prevailing infant schools and extending their influence. Both writers are determined to make it clear that the nursery school is in no sense a substitute for the home. The nursery school "should be included in every housing scheme, and meanwhile lead the way, by securing for groups of children the healthy conditions of life which are the right in every home." (Grace Owen, p. 14.) The nursery school "is the private nursery enlarged, and adapted to the average family's needs;

and there is no reason at all why it should not rival any private nursery in its home likeness and efficiency, or why, for that matter, it should not one day be presided over by the mothers themselves." (Margaret McMillan, p. 23.)

For details regarding the actual conduct of the English nursery schools the reader is referred to the books above mentioned. There is nothing novel or startling in the methods themselves. The project represents an effort to blend what is best in day-nursery and kindergarten practice, and to develop an institution which shall function in close physical and personal connection with the home, and preserve the best values of the home.

4. Nursery schools of America

It remains to mention one or two of the recent enterprises in the field of nursery education in America.

A nursery school experiment in New York City. In an attractively equipped building, in the lower part of Manhattan Island, New York City, the Bureau of Educational Experiments established a nursery school which is now completing its third year. "The City and Country School" receives children at three years of age, with separate teachers and rooms for the three-year, four-year, five-year, and six-year-old groups. Its buildings adjoin the Bureau of Educational Experiments, and children are transferred to it as they reach the upper age limit of the nursery school. The physical equipment of the nursery school includes

generous indoor and outdoor play space, a playground on the roof, sleeping-quarters isolated from the sound of voices and divided so that the sleepers will not disturb each other, an isolation room, a good-sized kitchen, and a dressing-room with toilet.

Miss Harriet M. Johnson, Director of the nursery school experiment, has kindly furnished a statement in advance of her printed report, from which I briefly quote:

> After the first year we decided to limit the age range to from about eighteen months to three years. We are more and more convinced that the homogeneous group is desirable. Advocates of a mixed group always refer back to the family unit as a model. We believe that the extension of the family grouping into the school is unwise. The older children either have to submit to continual interference by the younger ones or they adopt the rôle of mother or nurse, in which case the younger tend to become passive and lose their impulse to independence and initiative. The constructive and purposeful functioning which we expect from the older group is turned into artificial channels.
>
> The set-up for a group of children under three years of age ideally should be that of a home in its intimate unity and in its equipment for physical care, but it must be planned in its space and furnishings with children not adults in mind. It thus differs from the home on the one hand, but also essentially from the institution, school, or day nursery on the other. The fact that our problem was one of research introduced another factor, limiting the scope of our work in point of view of numbers and making a larger staff necessary than is called for by the usual day-nursery situation. Stating the requirements in terms of our aims we might say that we desired, first, to give children as efficient physical care as that of a well-ordered home; second, to provide them with an environment which should be favorable for their fullest development; and, third, to work out through our records a method of checking up our educational procedure and of gathering data which could be used for research purposes.

We believe that there is no process in the care of a child that is not educational to him and illuminating to the adults who are trying to learn from him. Therefore, we as teachers assume the entire care of the children. We include no maids on our staff except one for the cleaning and laundry work.

We planned originally for ten children, but as our first year progressed we found that two teachers with an assistant in the kitchen were necessary for the care of eight children. Again this year we have attempted a registry of ten, adding the new children late in the year when the group was well established and when we were assured of an additional assistant. Again we are convinced that eight is a more satisfactory number. A social group of two-year-olds is quite different from one of "fours." It is a group of individuals playing individually. Too close contact results in interference and in a disturbance of the serenity which is essential for success.

We are, moreover, concerned with the research aspects of the experiment, and together with the physician and psychologist are trying to develop a technique of observing and recording children's responses. We have as yet done little more than state the problem tentatively. . . . We do not consider ourselves ready to make a statement of results. Our experiment is still too young and our findings are too tentative. We are following our children into the City and Country School with interest, to see how they adapt themselves to the program there in contrast to those who have not had nursery experience.

From the above account it will be seen that, in the New York Nursery School, the emphasis is on the experimental or investigative side. This is less true of the Ruggles Street Nursery School and Training Center of Boston, where the objectives are more immediately practical.

Work in Boston. In 1920, the Woman's Education Association of Boston (for fifty years this organization has been instrumental in starting and furthering

new lines of work in matters of educational importance) decided to start a nursery school along the lines of the English nursery schools. Because no one could be found ready to take charge of such an experiment, the Association sent Miss Abigail A. Eliot, the present Director of the Ruggles Street Nursery School, to England for six months to study the nursery schools there. The Ruggles Street Nursery School actually came into being on her return, January 1, 1922. It is under the auspices of the Woman's Education Association of Boston, and the committee in charge of its affairs is a committee of this Association.

There are now twenty-three children enrolled in the school, which admits any children of two and three years of age whose parents wish to send them. The children may be at the school from half-past eight to four o'clock, five days a week. The morning is spent in educational play and occupations, with milk to drink at ten o'clock. Dinner is served at twelve, and the children sleep from one to three. When weather permits, the school is held out of doors most of the day, including the nap time. The parents pay fifteen cents a day for the dinner.

The school has two chief objectives. The first is to create the right environment for children of this age and to discover what are the educational needs of the pre-kindergarten child. The work is almost wholly individual. The second objective is to demonstrate to the parents the value of right physical, mental, and moral care for their children.

The Detroit Foundation. In 1918, in Detroit, there was admitted to probate a will which contained the following interesting provision:

I hold profoundly the conviction that the welfare of any community is divinely, and hence inseparably, dependent upon the quality of its motherhood, and the spirit and character of its homes, and moved by this conviction, I hereby give, devise, and bequeath all the rest, residue, and remainder of my estate, of whatsoever kind and character, and wheresoever situated, for the founding, endowment, and maintenance, in the City of Detroit, or in the Township of Greenfield, County of Wayne, State of Michigan, of a school to be known as the *Merrill Palmer Motherhood and Home Training School*, at which, upon such plan and system, and under such rules and regulations, as shall, in the judgment and wisdom of those upon whom the administration shall devolve, be adopted, girls and young women of the age of ten years or more shall be educated, trained, developed, and disciplined with special reference to fitting them mentally, morally, physically, and religiously for the discharge of the functions and service of wifehood and motherhood, and the management, supervision, direction, and inspiration of homes.

Under the terms of this will, the "Merrill-Palmer School of Homemaking of Detroit" was organized, in 1920, with Edna M. White as Director. The school has undertaken three lines of activity: (1) One of general education and advisory work in the fundamentals of nutrition; (2) unit extension courses in homemaking, dealing with (*a*) clothing, (*b*) food, (*c*) home and the family, (*d*) health; (3) a nursery school.

The Merrill-Palmer Nursery School was established in 1921, Miss White spending the summer of that year in making a first-hand study of the English schools. The official report of the school describes its objectives as follows:

In order to insure that sufficient emphasis should be placed upon the mental development of the children, a

psychologist, Mrs. Helen Thompson Woolley, was secured to organize and develop the Nursery School, and instruct the resident college students in child psychology and child management. The engagement of Miss Henton, of the Gypsy Hill Training College, to take immediate charge of the work with the children assured us of the advantages of the best experience of England. We feel, therefore, that the plan offers not merely a real opportunity to young children for physical, mental, and social development, but also an opportunity to a group of young women for a vital type of laboratory work in child psychology, child health, and nutrition. Training in the sociological problems immediately related to the family, and in field work connected with social agencies devoted to children's problems, is also part of the plan.

If education of the nursery-school type is ever to be made available for the community at large, it must, of course, be through the agency of the public and private schools. Accordingly, we have from the start worked in as close coöperation with public and private schools of the city as possible, in order that we might have the constant advice and interest of those responsible for public education.

The future of nursery establishments. Reviewing, then, the origins and present status of the nursery, it is clear that we are still far from a satisfactory solution of the problems involved. The day nursery as an economic necessity is still on the defensive and should be kept there. It cannot be fully justified on purely economic grounds, if there is any possible social device which will enable the mother to preserve her natural relations to her young children. Wherever day nurseries are maintained, the rights of the family should be safeguarded by insisting on rigorous investigation of each case before admission. Is it possible so to conduct nurseries that they will not be merely receiving

and relief stations; but will actually have a strengthening effect on the home? May they be used as centers of education for mothers and fathers; and thus become supplementary instruments for improving the physical and mental welfare of pre-school children?

It may be part of the mission of the nursery school to point a way for the safe and logical development of the day nursery. It may also be part of the mission of the nursery-school movement to indicate new lines of development to the present-day kindergarten. Or is the nursery school destined to displace the kindergarten?

As a sociological venture and educational experiment the nursery school will be watched with interest and critical expectation. It cannot be a panacea for the pre-school child; it may even have a hidden danger or two. As an effort to supply parental guidance and training for parenthood, its contributions will be welcomed. We hope that it will at least demonstrate the latent power of the American kindergarten, and stir it to larger life.

CHAPTER IV

THE KINDERGARTEN

1. The strategic position of the kindergarten

Importance of the kindergarten in America. There is no agency concerned with the welfare of early childhood which, in America, holds more power for effective service than does the kindergarten. The kindergarten is strategically situated in our educational scheme. It is the very vestibule of our vast public school system. Its outer door opens into the homes of the people, and its inner door into the elementary school, into which each year some 3,000,000 children are recruited.

Ever since its introduction into this country, the kindergarten has maintained itself as a kind of intermediate station between the home and the primary school. It has not surrendered its prerogatives to either institution, and has won for itself at least the presumptive right to existence. How independent this existence should be is an important question; but we no longer ask, "Will the kindergarten be abolished or absorbed?" Most of us have come to the conclusion that there is something about it which is indestructible. The question is, rather, How completely will the kindergarten respond to the demands that are to be made upon it in the interests of the pre-school child?

In spite of economic and administrative pressure,

the kindergarten happily has resisted benevolent assimilation. It remains to this day a silent, visible protest against the mechanistic tendencies and institutionalization of primary education. In spite of its own very serious errors, those of sectarianism and pedagogical mysticism and symbolism, it still is in a peculiarly favorable position to make a new contribution to public education and to child hygiene. It is not subject to curriculum domination; it is not embarrassed by prescriptions of academic requirements; it is architecturally freer, being unbound by the stationary rigidity of conventional school furniture; and its best traditions place a premium upon that liberty and happiness which the Greeks at least knew were inseparable from health.

Possible readjustment of the kindergarten. The kindergarten may again become the rallying-ground for a forward movement in child hygiene, if it will assert in unmistakable terms, and by modern works and deeds, the sacred right of young children to physical and mental health. To do this the antique doctrines about finger plays and gifts, the Hegelian dialectics, and the *Gliedganzes* must be safely stored in their old bottles. There must be a radical, courageous reconstruction which will align the kindergarten with all the vital work which is now being done in the field of baby welfare and make it an integral and culminating part of a system of pre-school hygiene. In this country, we do not so much need a new nursery-school movement patterned on what England is doing, nor do

we need a revival of Montessorianism. Instead, we need a fearless, fundamental readjustment and extension of the present American kindergarten to meet the elementary necessities of a program of continuous health supervision and developmental hygiene for the much-neglected pre-school child.

Such a readjustment would do least violence to our existing system of public education. It would revitalize the kindergarten itself — no small benefit; it would preserve the responsibilities of the home; and it would aid in the solution of perplexing problems relating to the administration of pre-school hygiene, school entrance, and health supervision.

A consecutive child hygiene program. There is need of more experimental work in kindergarten organization and administration. School superintendents and boards of education in general have neglected this field. A multitude of problems concerning children of school age have been considered more pressing, and the kindergarten has been regarded as a somewhat exceptional, supplementary feature of the public school plant, not to be unduly molested. The fact that the kindergarten deals with children who have not reached compulsory school age has also affected the situation. When the kindergarten has been made a subject of conscious administrative attention, the question has usually centered about the methods of readjustment between the kindergarten and the first grade. Although this question is not without importance, it represents only a very partial aspect of the large prob-

lem of the reconstruction of the kindergarten. The big administration problem concerns the ways and means of identifying the kindergarten with a consecutive program of developmental hygiene for pre-school children, and of making that program, through the kindergarten, continuous with a more flexible and hygienic type of primary school.

The kindergarten is to-day distinguished by a kind of isolation which is becoming more and more unjustifiable. A gap separates it from the public school; a chasm separates it from the infant-welfare and public-health organization of the community. If it is to realize its destiny, it should become an organic part of a unified system of public health and education. Its strategic, intermediate position in the social scheme presses upon it the duty to assist in bringing about such a unification.

2. Present status of the kindergarten

The modern kindergarten greatly modified. What has the kindergarten done to meet the situation? It has prepared itself in part. The progressive kindergarten has abandoned a blind devotion to the ten formal gifts, the traditional occupations, and the mother plays and finger songs. It has given up the old insistence on formal sequence, symbolism, and prescribed program. It has recognized the necessity of at least supplementing Froebel's philosophy with a scientific type of genetic psychology; has introduced a freer life, with constructive activities which are defi-

nitely intended to promote the mental vigor of its children. The liberal wing of kindergartners have caught some concept of the possibility of actually applying the principles of mental hygiene in early childhood, through a thoroughly modernized kindergarten; and this goal has been so well striven for that we must perhaps say that the nearest approach to ideal educational procedure in our public schools has been attained in just such kindergartens. These positive achievements justify a great faith in the power of the kindergarten to meet at least the educational demands which the future will make and which the present is forming.

What the kindergarten still needs. But when we consider that the basis of all true nurture is physical, and when we survey the kindergarten situation from this viewpoint, the outlook is not so clear, and not equally encouraging. There has been a deplorable tendency to ignore the physical aspects of development, to disregard the symptoms of physical defect and disease, and in actual practice to neglect even such fundamentals as sunshine, milk, free outdoor play, and sleep. We do not, of course, believe that there has been a conspiracy against the physical welfare of the kindergarten child; but we ask, Has there been a conspiracy to promote this physical welfare? Where do we find an individualized medical inspection and a health supervision? Where do we find this supervision begun in babyhood and continued into the nursery and kindergarten years, and deliberately related to

school entrance and school program? Do we have any evidence that the kindergarten generally considers itself part of a social effort to reduce childhood mortality and morbidity, and to raise the natural standards of physique and vitality? The day nursery, it is freely granted, should safeguard the physical welfare of the child, but the kindergarten is often supposed to have a higher concern.

G. Stanley Hall, who would gladly have himself called a true disciple of Froebel, said several years ago: "If my interpretation of him be correct, he would be appalled and horrified at much that he would find in the average American kindergarten and would vastly prefer a good day nursery."

Conditions have improved in the decade since this statement was published (1911); but more than mere improvement is necessary if the situation is to be remedied. It will not suffice simply to introduce ordinary medical school inspection, to teach a few health habits, and to open the windows. There must be a fundamental reconstruction of outlook and procedure. It need not be sudden, but it must be sincere, and much of it will be administrative in character.

Professional kindergarten training. In principle the distinctions between nursery, nursery school, and kindergarten ought to disappear. The kindergarten must assimilate all that is best in nursery and nursery school, and possibly even some of the actual functions of these two institutions. The day nursery has

shown a disposition to annex kindergarten features. It is even more important that the kindergarten should adopt the highest standards and methods of the nursery; but there should be no false distinctions between bodily care and spiritual training. The preschool child is a unit, and there is really but one hygiene for him, and that is a developmental hygiene.

An appreciation of this type of hygiene demands more than the prevailing courses in kindergarten methods and child psychology. It demands some of the professional training of the nurse, and an elementary knowledge of certain fundamental chapters in pediatrics. Indeed, it may be questioned whether the ordinary primary-kindergarten normal school course will be adequate for the future. The training of both medical and public-health nurses and of social workers and visiting teachers is undergoing significant advances which offer many suggestions toward the development of a new type of professional training for kindergartners. If the kindergarten is to become articulated with the gathering public-health movement, a revision of professional training and outlook is necessary.

Relations of the kindergarten to infant welfare. The starting-point in safeguarding the developmental rights of the child is the infant welfare conference in which figure the mother, physician, nurse, — and the child who in a few short years will be a candidate for the kindergarten circle. Is it possible that these baby welfare conferences have no interest, no significance for the kindergarten, and that there are no vital threads

of contact which it can carry to the new infant, so that he may be brought more securely along the paths which lead from the home through the kindergarten into the public school? The kindergartners should be the first and not the last to see the pregnant implications of all this infant-welfare work which is spreading the country over, but which is growing in its own field, often unnoticed, by the very agencies it most concerns.

For some reason infant-welfare work has become associated in the minds of people with pasteurization and with milk modification. As a matter of fact the infant-welfare conference is an educational institution with endless possibilities of elaboration, development, and upward extension. It is groping now to establish contacts with the nursery and public school. The term "milk station" is falling into disuse, and broader terms, such as "conference," and "children's health center," are taking its place. The magnitude of this new social device can be inferred from the following minimum standard proposed for the public protection of the health of infants and pre-school children, as published by the Children's Bureau:

> Sufficient number of children health centers to give health instruction, under medical supervision, for all infants and children not under care of private physician, and to give instruction in care and feeding of children to mothers, at least once a month throughout the first year, and at regular intervals throughout the pre-school age. This center to include a nutrition clinic.
>
> Children's health center to provide or to coöperate with sufficient number of public-health nurses to make home visits

to all infants and children of pre-school age needing care—one public nurse for average population of 2000.

If this minimum standard is even approached, we shall soon have in this country a most potent and extensive institution, with which the kindergarten will be compelled to reckon in some form or other. It is essential that this institution be incorporated into a unified system of child hygiene which will be continuous with the organization of the public school, and include educational as well as medical activities from the earliest stage upward. The kindergarten, by coming into closer working relations with nurseries and with public-health administration and visiting nurse activities, can render much service in bringing about a unification of a child-health program.

3. Lines of future development

Possible immediate connections. There are several lines of readjustment which the kindergarten could venture upon in the interests of such a program. Kindergartners in service, and cadets as well, could assist in infant-welfare and home-visitation work. An effort could be made to conduct certain children's health centers in kindergartens or near kindergartens. Kindergartens could coöperate in developing methods for more parent-teaching in connection with the conferences. They could take over a certain amount of this parental work themselves. The kindergarten might also become interested in developing an observation and information record of prospective kinder-

garten children while they are still in the infant-welfare period of development. The kindergarten is indispensable for the proper conduct of pre-school nutrition clinics and classes.

Kindergartens should judiciously take on the best features suggested by nurseries and nursery schools — emphasis on physical care and cleanliness, provisions for lunches, ample outdoor life, frequent outdoor excursions, liberally increased opportunity for free play, and finally for rest, perhaps even for sleep. The kindergarten of the future will probably reflect more the atmosphere and technique of a health-promoting agency and less that of a sub-primary schoolroom. In this setting the bodies of children will thrive better, and there will be ample opportunity for mental and spiritual nurture as well.

Necessary changes in organization and work. A flexible type of kindergarten could readily assume certain nursery functions, and could even take over, for short periods, the care of children three years of age and younger. Such a kindergarten would be equipped and staffed to permit of multiple uses. It should be as adaptive and responsive to the childhood needs of the neighborhood as, in their field, are a hospital and dispensary. It should become a center for home instruction, for parental training, and a clinic for the education of adolescent boys and girls and working youths who, in a few years, will be fathers and mothers.

The principle of multiple use could be put into

practice, also, by shortening and multiplying sessions, and by having certain age-groups or developmental-groups report on alternating days. It is not advantageous for the kindergarten to operate on a schedule or basis which, after all, is historically an imitation of or a concession to traditional public school practice. We are, of course, assuming here a reconstructed kindergarten, and not the circumscribed, conventional organization under which it functions to-day. The kindergarten must burst these patterns if it is to fully serve the pre-school child of the future.

CHAPTER V

SCHOOL ENTRANCE

The kindergarten and school entrance. The whole problem of the function of the kindergarten comes to a crux when we inquire, What should be the relation of the kindergarten to school entrance? If the kindergarten has no vital business in this field, it may be questioned whether it should be part of our public school system at all.

No feature of public school administration is apparently under less control than that of school entrance. There are laws which state the age when compulsory education shall begin, permissive laws which state the age when children may be admitted, and often a statute which requires vaccination, but beyond these there are few regulations except as to attendance and promotion. The excessive repetition in Grade 1 (about one out of four first-graders fails of promotion) is itself a sad commentary. We virtually place a premium upon failure by insisting so speedily on academic standards of promotion. As for medical inspection, ordinarily no preference is given to primary grades; often they are even slighted, and it is a very exceptional school which insists on a thoroughgoing physical examination of the school beginner. In other words, we annually recruit three millions of

school children into our great educational camp without meeting the hygienic responsibilities and opportunities involved.

And what is the relation of the kindergarten to this great responsibility, and still greater opportunity?

Possible kindergarten control of school entrance. In weighing this question let us visualize the kindergarten as an intermediate station, or a corridor which lies between the first two epochs of childhood — the pre-school period and the school period. The kindergarten derives much of its power, indeed, from the fact that it lies within the borders of the pre-school epoch, which, all things considered, is the most important period in the whole span of development.

The problems of pre-school hygiene and of school entrance are inseparable, and both are in turn inseparable from the kindergarten. The whole matter of school entrance is in last analysis one of hygiene. Matriculation into school life should be conditioned primarily by standards of health and development; and should be regulated by a policy of medical oversight and educational observation. Instead of unceremoniously and haphazardly admitting three millions of children and failing one fourth of our first-graders at the end of the first year, we should gradually reorganize the kindergarten and the primary school in such a way that the school beginner will be under systematic, purposeful observation. This means a gradual relaxation of our present zeal to "teach" him, and the substitution of a much more whole-

some solicitude, namely, one to safeguard his health and to understand his psychology.

Administrative readjustments. The kindergarten is admirably fitted for the development of a policy of observation of school beginners leading to a hygienic control of school entrance. The kindergarten and first grade could be gradually reorganized in a manner to bring at least the first half of school life under systematic, purposeful scrutiny. Teachers, program, schedule, equipment, and medical inspection could be adapted to this end. There should be an induction period, with a system of record-keeping, and classification of pupils to determine their immediate educational treatment and their subsequent treatment in the grades.

Fully aware of the practical difficulties involved, let us sketch some of the features of an ideal induction plan. Let us assume a kindergarten organized with a flexibility which will bring it into actual contact with the pre-kindergarten period of the child, and which will also give it some freedom of operation in the period, ordinarily preëmpted by the first grade. Let us assume the complement of this — that the organization of the primary department will be elastic enough to permit full emphasis on the basic developmental needs of the child, rather than on reading, spelling, and arithmetic. These are generous assumptions; but we are counting upon a generous reader and a real disapproval of the present haphazard and unhygienic conditions which surround school entrance.

The solution of the problem of school entrance can be discussed under the three following heads:

1. Health examination and health supervision.
2. Psychological observation.
3. Educational adjustment.

1. Health examination and health supervision

A school entrance examination. Surely there should be, at a minimum, a thorough and comprehensive physical examination of the school beginner. The desirability of this is obvious to common sense, but strangely enough only here and there has the idea been put into practice. Candidates for army life, for industry, and for insurance are subjected to a careful medical investigation. Why not the candidate for school life, which is by no means without its hazards and burdens? A physical examination for every school beginner is so important that, if necessary, the summer vacations should be used for the purpose, and such examinations, whenever possible, should be made in the presence of, and with the coöperation of, the parents.

But what is a school beginner? Is he the six-year-old boy who, for chronological reasons, then comes under the law of compulsory education? Naturally and ordinarily this is what the true term means. But from the standpoint of systematic hygiene it becomes necessary to ask whether this examination at school entrance ought not to be anticipated by periodic examinations throughout the whole pre-school period,

and by a policy of health supervision which will consecutively follow the child through this period, and perhaps become intensified during the kindergarten age. This is the goal toward which health work is rapidly moving, and as it is reached, a specialized school entrance overhauling becomes of less importance.

The objective in public health work. One of the great objectives of public health work is the prevention of disease and the reduction of defects. From the standpoint of preventive medicine, it is more important that the child should receive careful health examination and oversight when he is four years old than when he is six years old, and every argument which we make for a physical examination at school entrance becomes stronger as we recede to the period of infancy.

The conclusion which follows from this simple logic is that there should be an unbroken system of health supervision which will perhaps have its places and times of emphasis, but which will never be relaxed. Indeed, the school beginner should have behind him a record of consecutive periodic examinations, and a series of special health adjustments made in his behalf, both at home and in kindergarten. The ignorance which we now maintain regarding his health and developmental history cannot persist indefinitely.

The kindergarten as a recruiting station. It is in the administration of this health supervision and of health adjustments that the kindergarten will find a new

field for usefulness. The medical profession can further the development of young children in two ways: (*a*) by directly or indirectly advising parents as to treatment, and (*b*) by utilizing agencies and institutions, such as nurses, social workers, nurseries, kindergartens, playgrounds, etc., to bring about actual health-promoting changes. Frequently these "health-promoting changes" are bound up with habits, with conduct, with morale, and with régime; they are always likely to have some educational aspect. Health is not a commodity which can be dispensed by any single agency. It is something so personal that the fundamental responsibility for it must always rest with the home and the individual, but the deficiencies or limitations of home and individual must frequently be corrected and compensated through social devices. In health instruction, in nutritional work, in constructive measures, both group and individual, for physically handicapped children, the kindergarten might become an indispensable instrument, particularly for the age period from three to six.

If "school entrance" is in any way to be regulated in terms of physical fitness, the kindergarten may become not only a recruiting station, but even a development battalion for our vast public school army. Equip and staff the kindergarten so that it will function as a combined health and educational agency, and it will, in a new setting, and with more plastic material, accomplish works of human salvage surpassing those done under the stress of war.

2. Psychological observation

Importance of an intelligence rating. All that has been said in regard to examination and supervision of physical development applies with equal force to mental development. It is important to discover the individual differences and the psychological excellencies and weaknesses of the school entrant. This can be done if the problem is definitely made part of the policy of the kindergarten. Under present conditions the kindergarten makes little effort to take account of the diverse capacities of its charges. Terman reports that "When asked to estimate the intelligence of each child on the usual scale of five; very superior, superior, average, inferior, and very inferior, the teachers protested that there was almost nothing in kindergarten work on which they could base a judgment."

This statement emphasizes the necessity of introducing some form of applied psychology into the kindergarten. In some cities an effort has been made to test school beginners with the Binet measuring scale of intelligence, which furnishes ratings in terms of mental age. Myers has offered a pantomime group intelligence test, given without language and designed for kindergarten to Grade Six in districts where there are many foreign-born children. The Detroit public schools are meeting the situation with individual tests devised for kindergarten children, and with a group test for the first-graders; the purpose of which tests is

to differentiate the children into (*a*) slow, (*b*) normal, and (*c*) fast-moving groups. "This gives all children the satisfaction and encouragement which comes from real accomplishment; it saves time for the bright pupils who may often be promoted after a half year, thus reducing the cost of instruction; and it prevents dull pupils from becoming contented with poor work."

The revised version of the Detroit Kindergarten Test consists of thirty pictures which the pupils simply mark with a pencil, in response to commissions like the following: Test 1: "Show me the thing that is up in the sky." "Show me the thing that gives light." Test 8: "See these pictures." "Point to two things which show that it is summer." The testing takes from seven to twelve minutes, and the score is used to classify the pupil into one of the above-mentioned groups.

The Detroit First-Grade Intelligence Test is really an adaptation of the army mental test to meet the mental level of the six-year-old child. The children in small groups hold their pencils up, as did the army recruits, and bring them down, on the appropriate command, to solve by some mark or line a pictorial problem printed on the test sheets before them. The score is a numerical index, which is translated into a lettered rating corresponding to the intelligence groupings used by the army: A, B, C+, C, C−, D, E.

Limitations of psycho-metric classifications. The use of intelligence tests with school beginners represents a constructive effort to improve the prevailing hap-

hazard conditions of school entrance. Their purpose is to prevent or reduce the excessive number of failures which occur in the first grade. It is important, nevertheless, to call attention to the limitations and dangers of purely psycho-metric tests. Our numerical ratings, however accurate they may seem because of their statistical formulation, need to be supplemented by data which cannot be secured by ordinary psychometric methods. These ratings do not supply an infallible index of a child's capacity, though they may be very valuable aid in developing a true estimate of his mental status. A true estimate depends upon an evaluation of those moral, social, and emotional traits which constitute the most consequential factors of his personality make-up.

There is a real danger that the convenience and apparent precision of psycho-metric tests will lead to a somewhat mechanical classification of pupils; and it is already evident that these tests will tend to be used to determine academic capacity and school promotion. The tyranny of the three R's has asserted itself even in kindergarten tests. We hope that mental classification in the kindergarten will not yield too exclusively to this influence.

From the broad yet concrete standpoint of mental hygiene, the determination of academic capacity at the time of school entrance should be a secondary consideration. However important educational measurements and numerical ratings may be in the administration of the elementary grades, the function of a

psychological service in the kindergarten should be nothing less than an attempt to estimate and interpret differences in personalities and character formation.

Methods of observation. Such a service, when fully developed, implies competent psychiatrists and psychologists attached to the school organization; but the burden of this work could be carried by the kindergartners themselves, under direction. What we need is more deliberate and patient psychological observation, of a non-technical type — the kind of observation which tests sometimes actually inhibit. Psychological observation, as we use the term here, is daily, hourly observation of the child engaged in the activities of school life.

His behavior at plays, games, hand-work, dancing, in conversations, and in his constructive enterprises becomes of real significance when made an object of purposive observation. When duly recorded and interpreted, this will prove to be psychological observation of the highest value which may be made to throw important light upon the moral and emotional equipment of the school beginner. Certainly such observation is necessary to supplement the raw rating of an intelligence index.

The social and constructive activities of the kindergarten give fine scope for this very observation which is needed if we are to regulate school entrance. Through them we can discover the superior, the balanced, the inadequate, the unstable, the infantile, the speech defective, and all the exceptional children who need a

specialized educational hygiene and a readjustment of procedure as to school entrance.

Such a policy of intelligent observation of the children is not incompatible with the program of the progressive kindergarten of to-day. It simply gives to these programs a double trend, one which is educative and another which is interpretative.

Observational value of the project. One of the best examples of this double aspect is represented by the so-called "project method" which has been so fruitfully developed by the kindergarten. A project is an enterprise of some complexity which requires purposive thinking to bring it to a conclusion. It is not something which is done from mere habit or prescription. A typical schoolroom project implies a motive on the part of the child, a desire to do something for himself or for the group; a consecutive, constructive thought process; and a result which gives sincere satisfaction to himself and possibly to the group in which he is working. Whether it is the construction of an aeroplane, of a grocery store, or of a bean bag (and a kindergarten child will attack any one of these problems), it is not only an avenue for self-expression, but it is virtually an objective, psychological, behavior test through which he reveals himself to the observer. And it is a particularly valuable psychological "test," because it brings into play so many personality traits, moral and social.

In a recent study made in a Meriden kindergarten, in which we were interested, the teachers found that

the deliberate observation of the project work of the children gave objective evidence for estimating the degree of such qualities as initiative, originality, sociability, self-assertion, alertness, span of attention, imitation, and leadership. Twice a week there was a period or session given over to free activity, in which the children had free choice of kindergarten materials. This free period was justified alone because of the information which it gave to the teachers. At the end of the year they had an intelligent judgment as to which children should be promoted, and which detained for further development work in the kindergarten.

Indeed, it would be possible to classify children on their ability to achieve certain types of project work; and it would be possible to grade them serially as Project A, Project B, and Project C, etc., pupils. It would also be possible to graph for each child a project profile, indicating his development in certain emotional and attitudinal respects. But here, again, lurk the dangers of psycho-metric methods. What we should strive for, in addition to index and graph, is a succinct descriptive paragraph which will summarize the important traits and outlook of each child. It will require a very practical kind of psychological observation to attain to such a paragraph!

Good psychological observation requires an educational setting. Those who have a certain sentimental attachment to the kindergarten may fear any features which might destroy the idealizing, optimistic spirit of

its work, but this fear is unfounded. In the first place, we cannot observe children at their best unless they are in an educational environment and an atmosphere which puts them at their best. The modern kindergarten is potentially an effective observation station, because its best educational work is informed with a fine, free spirit. We cannot set into operation an interpretative individual psychology without the aid of a favorable educational setting. Such a setting is indispensable for the timely detection of cases of psychopathic personality, and nervous and border-line conditions for which preventive work is most hopeful. It is well to remember that our best justification for applied psychology is, after all, one of prophylaxis or prevention — and prevention must start early. Why not in the kindergarten?

But the principle of prevention always leads us backward in time and space. We arrive at the same viewpoint in regard to the child's "mind" that we reached with regard to his physique. There should be periodic physical examinations and a consecutive health supervision throughout the whole pre-school period, beginning with the nursling; and practically, as well as theoretically, there is every reason why this oversight should be made to include developmental observation and educational guidance. Indeed, if mental hygiene in this field is to be anything more than a vague abstraction, we must devise some way by which important errors and defects of mentality or of character development can be detected and perhaps

mitigated. The conferences at health centers, and the periodic health examinations, may be widened in their scope, so that standards of healthy mental as well as physical development will come more fully into effect.

Developmental history a desirable aid. From the standpoint of school entrance, it is both desirable and practical that we should have in our possession a brief, cumulative biographic record, which will summarize the child's previous development. A physician would not undertake a difficult diagnosis without an anamnesis of the case. Hygiene and education cannot do their best for the child unless his developmental history is known. The very adaptation of the program of the kindergarten to the needs of individual children requires an appreciation and often a careful interpretation of what has happened to those children during their pre-kindergarten careers.

The kindergarten may aid the elementary school by furthering a hygienic rationalization of school entrance; but the kindergarten itself has its own matriculation problems, which must be solved in the same manner by taking systematic account of the previous career of the candidate. Mechanical classification by psychometric methods will never solve these problems. We shall always need a biographic, quasi-clinical type of observation all along the line. The farther back we push this observation, and the more closely we knit it to our public health technique, the more likely we are sometime to accomplish preventive and reconstructive results in the field of mental hygiene.

3. Educational adjustment

Kindergarten and first grade. The kindergarten is not only an instrument for determining the developmental differences and needs of school beginners and fledglings. It is an educational institution which must perform its proper and essential part in the actual work of education. Indeed, the two functions are interdependent; each reënforces the other. One reason why the skeptics hold the work of the kindergarten in low esteem is because they see in it an idealistic educational enterprise which is made fatuous because it is not discriminatingly adapted to the varying needs of individual children.

The educational value of the kindergarten will be heightened if its methods become psychologically more scientific, and if its motive becomes sincerely that of hygiene. To make possible the operation of such methods and motive, the primary school must modify its objectives. Surely the first grade, at least, must relax its excessive emphasis on the so-called "fundamentals," and shift it to true fundamentals. A modernized first grade will bear a striking family resemblance to a modernized kindergarten. We may even dispense with the teaching of reading, although this is not necessary. With a community of spirit between the first grade and the kindergarten, and an interlocking flexibility of procedure, much can be hoped for the improvement of school entrance through educational adjustment work.

Mental, social, and moral maturity. These adjustments must take into account the developmental maturity of the children, a factor which is at present so much ignored that approximately one pupil out of every four fails of promotion at the end of the first year. Miss Cuneo made a mental test of 112 children attending California kindergartens. All but 19 of these pupils were from 4 to 6 years of age. The mental ages ranged from 3 years and 4 months, to 7 years and 7 months. Comparison of the mental ages of these 112 children with the mental ages of 150 unselected first-grade children tested by Dickson showed that nearly a fourth of the kindergarten children equaled or exceeded the median mental age of those in the first grade, and more than half equaled or exceeded the lowest fourth of first-grade children. Educational classification cannot be safely determined by mental age alone, but the overlapping revealed by these figures points to the necessity of fundamental readjustments between the kindergarten and first grade, and of differential provisions for relatively superior and relatively inferior groups.

If we had numerical devices for portraying differences in social and moral maturity, we should undoubtedly find the same degree of overlapping and many amazing disparities and incongruities which are now lost sight of. These individual differences in emotional and volitional traits are of more importance than those which are purely intellectual. A program giving a large place to individual and social project

work, and to plays and games, will reveal those children who are most in need of corrective educational work in this field. It is important that infantile, diffident, and seclusive children should not be too hastily "promoted." It is desirable that children with traits of courage and leadership, and with gifts of artistic imagination, should have opportunities for their expression.

The kindergarten and a hygienic control of school entrance. If the kindergarten and first grade conjointly develop into a kind of vestibule or induction school, the present gap between them will be bridged, and the lamentable rigidity of the present regulation of school entrance will break down. Ideally such an induction school should detain some children a very long time, and others it should speed on; some children might attend it for specific purposes only a portion of a day, or a few days in the week; other children, even after promotion, might be returned to it for short periods; and it may be that for still other children who are seriously handicapped very special provisions should be made for ages as low as two and as high as eight. The function of the kindergarten in this field will be indicated in a later chapter.

Unless we choose to limit the kindergarten to a very narrow, independent sphere of work, it seems that it is destined to play an important rôle in a much-needed hygienic rationalization of school entrance.

CHAPTER VI

HANDICAPPED SCHOOL CHILDREN

The school as a child-welfare agency. When the term "handicapped children" is used, we usually think of school children. We associate the term with those children who, by reason of physical or mental defect, are unable to profit from ordinary instruction and therefore need special educational or hygienic adjustments in their behalf. The problem of handicapped school children is indeed a large one, and the responsibility of the elementary-school system in relation to the problem rests upon broad legal and social sanctions.

In a later chapter it will be our purpose to consider the importance of the pre-school period in the causation and control of handicaps; but a proper perception of these pre-school aspects depends upon an appreciation of the functions of the public school in the care and treatment of its exceptional children.

In the consideration of certain problems of child welfare, we are apt to forget or to undervalue the importance of our public school system. Our vast aggregation of elementary schools ought, however, to be regarded as our largest and, in a sense, most legitimate official child-welfare agency. Certainly the historic sanction and strategic position of the public school system in the American commonwealth make it the

most promising instrument for the further development of public policies in behalf of a very large proportion of those exceptional children who, because of handicap or other circumstances, need a special measure of extra parental care during the years of their education.

A few statistics will convey the broad outlines of the national situation. The figures are rounded, but sufficiently accurate for the purpose in hand. There are twenty millions of children enrolled in the elementary public schools of the country. These children are provided for in over a quarter of a million of buildings, with a valuation of two billions of dollars. The personnel of this vast plant consists of over a half-million teachers, supervisors, and superintendents; and, in city districts, of about three thousand physicians and school nurses and sixteen hundred truant officers. The welfare of no less than three quarters of a million of physically and mentally handicapped children is affected by the policies of this huge institution.

Types of educational handicap. A complete classification of handicapped children would include all those children who, by virtue of exceptional circumstances or of inherent or acquired constitution, deviate so much from the normal as to cause a special status to arise with reference to their educational and social treatment. Sometimes the courts determine when the special status exists; sometimes it is a matter of common knowledge; sometimes it is only recognized by experts; but, in one way or another, the handicapped

child generally comes within the purview of the public school system and educational law.

A comprehensive list of the consequential forms of handicap would include those of environmental character, abnormal home, and economic conditions, such as illegitimate parentage, dependency, neglect, and injudicious employment; and a large group of constitutional and acquired handicaps affecting physique, sensation, motor capacity, social conduct, and mentality. We shall consider mainly the children with constitutional and acquired handicaps.

It is, of course, impossible to set precise limits to such a term as "handicap." The scope of our discussion, however, is indicated by the following quotation from a recent Connecticut statute:

> The term educationally exceptional children shall include all children over four and under sixteen years of age who, because of mental or physical handicap, are incapable of receiving proper benefit from ordinary instruction and who for their own and the social welfare need special educational provisions.

It will be noted that this statutory definition partly recognizes the pre-school as well as the school aspect of the problem, by including children of ages as low as four and five.

Distribution of handicaps. On the basis of this definition I would estimate that about one public school pupil out of twenty-five may be regarded as exceptional. From the standpoint of child welfare and school administration, the distribution of such ex-

ceptional children per 1000 of all children of compulsory school age would be approximately as follows:

Blind and partially sighted	3
Deaf and semi-deaf	2
Crippled	2
Physically defective	12
Psychopathic	2
Delinquent	4
Speech defective	3
Mentally deficient	12
Total number per 1000	40

If we give the term "exceptional" a still wider connotation, we would include in the above list two further groups of children: (*a*) those who are not classified as feeble-minded, but who are extremely dull or non-academic; and (*b*) those who are unusually gifted or endowed with superior intelligence. These two groups combined would bring the total up to 50 per 1000. They are by no means unimportant from the standpoint of social and educational policy.

No one of the above groups can be limited with absolute precision. A speech defect, for example, may be so mild as to be negligible or so severe as to constitute a real handicap. The figures we have given are intended to include school children whose defect or deviation is so serious as to call for special consideration, even in a non-Utopian state.

New conceptions of educational obligation. A generation ago the exceptional child was not conceived as being a legitimate public school problem. It was assumed, it is even now sometimes argued, that the

business of the schools is to teach the statutory subjects — reading, writing, and arithmetic; but the principle of compulsory education in a democratic country has carried with it implications which have brought about an altogether different point of view. A policy of exclusion would have led to only confusion and injustice. The public school in progressive communities is steadily shouldering the whole problem of defective and handicapped pupils, and one can find examples of special tax-supported provisions for every type of exceptional school child.

The present status and possibilities of these provisions can be briefly indicated for each of the eight classes of children referred to in the preceding classification.

1. Blind and partially sighted. The number of pupils in schools and classes for the blind in 1918 was 5386. About nine per cent of these were receiving their education in ten cities where classes for the blind are part of the public school system. The first city school classes for the blind were inaugurated by New York City and Cleveland in the year 1909. One or more classes were maintained in 1921, by Chicago, Detroit, Jersey City, Newark, Cincinnati, Mansfield, Toledo, and Milwaukee. It is very significant that in a short period of twelve years such a large proportion of blind children should have been reached by the public schools; and that such states as Pennsylvania, Ohio, Minnesota, and New Jersey should have passed laws providing liberal State aid for the education of blind children in public school classes.

Cleveland has been a pioneer in having the blind taught in classes with seeing children. The special teachers for the blind children are tutors for the group, and segregation is reduced as much as possible. Since the blind must find a place in life beside the seeing, this Cleveland plan has much to commend it. This same consideration is a reason for further fostering public school provisions. It is not impossible that State departments of education and commissions for the blind will gradually develop an administrative technique, through supervising experts, visiting instructors, and training centers, whereby an increasing number of blind children from small communities can be educated under public school auspices. The fact that the per pupil cost of education in a public school class for the blind is less than half of the per pupil cost in a public institution will fortunately not act as a deterrent.

The education of the near blind or partially sighted is a problem which falls peculiarly within the scope of the public school. Surely it is not a problem to be solved by erecting State institutions, or by excluding the child from school attendance. The task is not a small one. The Massachusetts Commission for the Blind found that four per cent of all school children tested had less than one half normal vision, and that 0.4 per cent (one in ten of this group) were so seriously handicapped as to require special educational procedure. Special sight-conservation classes for partially sighted children are being established in several of the larger cities of the country, and with very bene-

ficial results. These classes should be fostered, but here again the special class has its limitations. More flexible provisions, more abundant materials, including large-type texts, can be created to reach the individual child who, in spite of his visual handicap, must be maintained in a regular school.

2. Deaf and semi-deaf. The drift toward public school care has, in the case of deaf children, been even more marked than in the case of the blind. This is all the more remarkable when it is recalled that the education of the deaf is one of the most difficult of pedagogical tasks. Government statistics show that the number of State and private schools for the deaf since 1900 has remained practically the same throughout the United States. The number of public day-school classes has increased from 41 in that year to 69 in 1918. The enrollment in these classes has mounted from 749 in 1900 to 2482 in 1918, an increase of 231 per cent; while the relative enrollment in State institutions has decreased in the same period from 89 to 78 per cent.

This is a wholesome tendency. The care of the deaf, like that of the blind, should so far as possible be de-institutionalized. The deaf child should, when practical, grow up in contact with the hearing child. Such contact can be supplied in the public school. Moreover, public school provisions for the deaf encourage the beginning of the oral method at the tender but favorable age of three or four, when families are naturally reluctant to commit to a distant institution. Several States now foster the extension of public school

classes by special grants of State aid. This fortunately is an administratively economical as well as a humane policy. The average annual cost per deaf pupil enrolled in public schools was (in 1918) $195. The corresponding average per capita expenditure in State institutions was $399; a difference of $200 per pupil in favor of those communities where deaf children were trained to speak and to read the lips, without being separated from their homes and from the companionship of more fortunate schoolmates.

3. **Crippled children.** Chicago, in 1899, established the first public school for crippled children in the United States. It now maintains under the Board of Education a permanent school building for the exclusive use of crippled children. The New York classes, inaugurated in 1906, now register over a thousand pupils. As many as eleven special classes for crippled children are maintained in one building.

The provisions for crippled school children now to be found in the larger cities often include school lunches and transportation. Sometimes the transportation is to regular classes. The per capita cost is not prohibitive, being less than that for the education of the blind and deaf. In Chicago, in 1916, it was $51 for teachers' salaries, $8 for lunches, only 16 cents for supplies, and $86 for transportation, a total of $145.

The complete and careful survey made in Cleveland, in 1916, showed that there were six cripples for each 1000 inhabitants; 22 per cent of all cases were under 15 years of age; nine per cent were from 15 to 19 years

of age. The age distribution of the blind shows that only 7 per cent are under 15 years of age. Furthermore, in only 26 per cent of the blind does the disability occur before the age of 15; while in the case of the crippled the proportion is 49 per cent. These figures emphasize the public school importance of the crippled child. The solution of the problem, however, involves much more than the creation of special classes and provisions of transportation. Many crippled children need medical care over long periods of time. This care can be rendered best by a hospital type of school, which should, however, maintain close relations with the public system of education. Here again it is desirable to avoid, so far as possible, unnecessary segregation or any tendency that would make the cripple self-conscious and dependent. The purely educational and vocational part of the task is one which the public school could undertake, even in sparsely settled communities.

4. **Physically defective.** This group is a difficult one to define. We include in it all children who are so seriously handicapped by malnutrition, cardiac defect, or chronic disease as to be urgently in need of special hygienic arrangements in school. To place the number of such children at over one per cent is conservative. The number of under-nourished children in an ordinary school population has been placed as high as from fifteen to twenty per cent; and as many (to a large extent the same children) are considered to be predisposed to tuberculosis. Medical inspection,

health instruction, physical education, nutrition classes, school lunches, home visitation, etc., must be counted upon to reach this large group of inferior children.

Open-air rooms and hospital schools are, however, necessary for the adequate treatment of many children. The first open-air schoolroom in the United States was established in Providence, in 1908. Since then such rooms and open-window classes have spread with great rapidity over the country, and can now be numbered by the score. New York alone has in the neighborhood of one hundred open-air classes. Vacation camps and summer outdoor schools for physically defective children will undoubtedly be further developed as a legitimate part of public school work. The welfare of the physically defective child in smaller communities depends upon a close coördination of public health, medical, and educational control. Much can still be done for him by special adaptations and supervision within the regular school.

5. **Psychopathic.** Although mental or nervous disability constitutes one of the heaviest burdens of society, almost nothing has been done by the public schools in the way of preventive mental hygiene. In 1920 there were 232,680 patients with mental disease, 14,937 epileptics, and 1971 alcoholic and drug addicts actually in institutions in the United States. A considerable proportion of all cases of mental and nervous disease are conditioned, if not caused, by factors which operate in childhood and youth. There are no convenient or accurate methods of diagnosis which will

reveal those children who are harboring a latent insanity or developing the basis for an insanity. Ordinary special-class methods will have decided limitations in this field, but careful observation and guidance of pupils with psychopathic tendencies has, on a small scale, been successfully inaugurated in the New York public schools. The first step in the development of constructive school measures lies in recognizing pupils who show serious defects in personality make-up, symptoms of emotional instability, emotional shallowness, perversions, irritability, morbid fears, psychasthenia, social maladjustments, infantile dependency, etc. The psychopathic child is father to the psychopathic man. Once the significance of this type of child is grasped, ways and means for ameliorating his condition and forestalling its latter-day consequences can be found.

We need, perhaps, to develop a new type of school nurse, who, by supervision, corrective teaching, and home visitation, will undertake the concrete tasks of mental hygiene. This psychiatric school nurse would be a counterpart of the medical school nurse and work in close contact with her, but she would revolve in a different circle of problems. Instead of pupils with discharging ears and deteriorating molars, her clients would be the child with night terrors, the nail-biter, the over-tearful child, the over-silent child, the pervert, the infantile child, the unstable choreic. There should in time be schools, classes, and camps in close relation to city and State school systems where children of this

type may go, for long or short periods and secure a combination of medical and educational treatment which alone is adequate to reconstruct them mentally. These provisions imply neurological and psychiatric specialists, educational psychologists, and teacher-nurses coöperating as public health experts in a work of mental salvage and prophylaxis. From a financial viewpoint these suggestions seem extravagant; but only by such radical and sincere methods can we ever hope to reduce the massive burden of adult insanity. Expensive in the beginning, a preventive juvenile system of sanitation administered through the public schools may, after all, prove to be a form of socialized thrift.

6. Delinquent. What has just been said about psychopathic children applies in great measure to the delinquent group. Both groups comprise disorders of conduct, faulty social adjustment, abnormal behavior, and instability. The psychological and psychiatric approach emphasizes the close relation and sometimes the identity of the problems involved in both fields. Our increasingly scientific attitude toward crime is bound to reflect itself in public school procedure.

Cleveland, in 1876, was the first city in the country to organize a school for incorrigible boys. A prominent motive was that of segregation and discipline. Similar "disciplinary classes," refractory classes, and day schools for truants have sprung up in our larger cities. Reformatories for boys and girls have usually been organized as State institutions and largely in-

dependent of the State educational system. It is desirable in many ways that public school provisions for the delinquent be further developed, so that the number of commitments to reformatories may be reduced and more timely preventive work may be done. A very considerable proportion of all careers of juvenile delinquency first manifest themselves in truancy, and a thoroughgoing interest in and study of all types of misfits and exceptional school children would ultimately lead to the reduction of crime. About one fifth of the population of reformatories is ordinarily defective in mentality. Industrial training and supervised vocational provisions, in close relation to local school systems, would make it unnecessary to commit many of this class of delinquents to State institutions.

The public schools ought to function in closer coöperative relations with juvenile courts, probation service, and industrial schools. The establishment of a "Twenty-Four Hour School," conducted by the Whittier (California) State School (for delinquent boys), is a promising experiment; it may be an object lesson of what public schools, by modified methods, might accomplish for the delinquent, without sending him out of the community for reform.

7. **Speech defective.** Stuttering children are sadly in need of attention, for as a rule they are neglected by both parents and physicians. Only those familiar with the subject can appreciate how serious this handicap is, what suffering it causes, and what effects it produces on the more sensitive child. Stuttering is a

disease, often associated with serious mental and nervous complications, but it is definitely curable, and responds to corrective training. For many years European public schools have provided this speech-corrective work. To-day it is coming to be considered a natural function of the schools in this country, as shown by recent subsidy legislation in Ohio, Minnesota, Wisconsin, and elsewhere. New York started a class in 1909, and has demonstrated the possibility of reaching a relatively large number of speech-defective pupils by assigning them, for portions of a day and term, to a speech-improvement class and permitting them to remain in their regular room the rest of the time.

8. **Mentally deficient.** Inborn and acquired deficiency of intelligence handicaps at least one child out of a hundred. In some respects this handicap is more serious than other forms already discussed; but in other respects it may actually be less serious for the individual and less burdensome to the State because it yields to social control.

In 1919-20 the National Committee for Mental Hygiene made a survey of provisions for mentally defective children. Thirty State and seventeen private institutions reported 26,774 children; 108 cities in the United States reported 1177 special classes providing for 21,251 defective pupils We know that the number of cities reporting is incomplete. It is safe to say that the public schools of the country are providing special provisions for as many mentally defective children as are now cared for by institutions Feeble-

mindedness is more and more coming to be regarded as a public school problem. Newark, Rochester, Boston, New Haven, and other cities have demonstrated that it is possible to create, within the public school system, day schools for defectives which embody the best features of State institutions, and which offer significant evidence of the adaptability of our public school system. These special schools, and special classes as well, often provide for children whose mentality is no higher than that of the institutional imbecile. Their chief function, however, is the timely training of the moron along lines which will make him more secure, useful, and happy in his community.

Feeble-mindedness is, of course, incurable, and even the graduate of a special class may need to be sent to an institution; but public school training, supplemented by a system of community after care, will not only reduce enormously the necessity of institutional commitment, but also many of the classic consequences of feeble-mindedness — vagrancy, prostitution, dependency, crime — and more feeble-mindedness.

New Jersey, Massachusetts, New York, Wisconsin, Pennsylvania, Missouri, and Minnesota all had laws, by 1921, making the establishment of special classes for mentally subnormal children obligatory. In all of these States there is supervision by the State Department of Education, and in most of them some financial aid is granted by the State. Wisconsin bears one third of the expenses for such classes; Pennsylvania one half; Minnesota pays annually the liberal sum of

$100 for each child receiving special class instruction. Prompt State-wide enforcement of these compulsory laws is inexpedient, but the general policy behind such laws is correct. Feeble-mindedness is both a State and a local problem, and to a remarkable extent it is a public school problem. A consistent development during the next generation of the policy of public school training and community supervision of these handicapped children will prove that the problem of mental deficiency is not overwhelming, but, on the contrary, is manageable.

Handicapped children and State policy. The above review of the different types of exceptional children is necessarily sketchy and imperfect. It reveals, however, a group of closely related problems of great significance from the standpoint of child-welfare administration. It appears that the public school is a fundamental child-welfare agency with vast powers as yet only partly realized. Sanctioned by far-reaching law and by tradition, and founded on the broad democratic principle of compulsory education, which carries it into the remotest rural corners, this great agency of the State must in large measure determine the future welfare of handicapped children.

There are several factors and considerations which favor the extension rather than the restriction of public school provisions for handicapped children: These are:

(*a*) The principle of compulsory education.
(*b*) The wide distribution of public school facilities.
(*c*) The growth of medical inspection of schools and of clinical child psychology.

(*d*) The joint relations of State and local authority in school administration.
(*e*) The relative economy of public school provisions.
(*f*) The disadvantages of institutional segregation.
(*g*) The desirability of maintaining the responsibility of the home.
(*h*) The importance of fostering local responsibility and community control of social problems.

The social significance of the principle of compulsory education has been well stated by Cubberley:

> Neither does the State establish schools because by State coöperative effort they can be established and conducted more economically than by private agencies, but rather that by so doing it may exercise the State's inherent right to enforce a type of education looking specifically to the preservation and improvement of the State.

The extension of compulsory education. The creation of public school provisions for handicapped children represents a reasonable, constructive, self-protective extension of the principle of compulsory education. This principle has justified, in spite of initial opposition, the development of medical inspection, the establishment of school nurses and clinics, and the certification of juvenile employees.

Public school provisions for exceptional children began through local initiative, but the States of the Union are now framing legislation and organizing subdivisions within their State Departments of Education, through which they will exercise their fundamental jurisdiction. Connecticut, in 1915, appointed a school psychologist under the State Department of Education, and, in 1920, passed a law creating a director of special classes. Wisconsin, Pennsylvania, New

York, Massachusetts, and Wyoming are among the States that have a special organization for supervising and directing the education of handicapped children.

The functions which naturally fall to the State in the public school care of handicapped children may be briefly summarized as follows:

1. To issue and enforce regulations regarding school enumeration and school registers, which will result in the reporting of all children of school age who, because of serious handicap or exceptional physical and mental condition, cannot be properly educated or trained under ordinary conditions. This would result in a simple form of registration very important for child welfare and social welfare.
2. To issue regulations and printed forms, and to render expert advice and assistance in the educational measurement and mental examination of handicapped or exceptional school children, including children passing through the children's court.
3. To furnish similar direction and assistance in the organization of special classes.
4. To initiate and direct special educational measures in behalf of exceptional pupils who cannot be assigned to special classes, schools, or institutions.

This particular function, though of extreme importance, is one which remains almost completely undeveloped. Measures must and can be found which will reach the handicapped child in rural and village communities. Through special courses in normal schools, special visiting supervisors, special training centers, school nurses, and circulating auxiliary teachers, a technique can be worked out which will remove the present neglect of the handicapped child in the

smaller community. When a special class cannot be provided, a special program for the individual handicapped child must be created.

5. To administer the distribution of State aid for special classes and auxiliary education.
6. To maintain general relations with all schools conducted in connection with special State or county institutions for dependent, neglected, defective, and delinquent children.
7. To foster and direct, as far as expedient, measures of vocational guidance and supervision for the benefit of educationally exceptional or handicapped youth up to the age of eighteen or twenty.

These powers are a natural expression of the relation of the State to children and to education. It should also be recognized that they imply a responsibility to handicapped children of compulsory school age who may be attending private and non-public schools or who may not be attending school at all. This responsibility must be carefully exercised, but it cannot be evaded. As in child hygiene the most primary necessity is a registration of birth, so in the case of exceptional school children the most elementary obligation of the State is the enumeration and registration of *all* seriously handicapped school children. Through the school census and school register, over which the State has fundamental control, let us find out how many school children are thus handicapped, where they are, and how badly they need our help.

The importance of gradually extending this solicitude into the pre-school age will be considered in the following chapter.

CHAPTER VII

PRE-SCHOOL PROVISION FOR HANDICAPPED CHILDREN

Medical and educational significance of pre-school years. A considerable proportion of the handicaps of school children are inherited, and a very large fraction of those not inherited are acquired in infancy. This means that the hygiene of handicapped children must have due regard for the pre-school years. The importance of these years has not received full recognition. Here, as elsewhere, the pre-school period is relatively neglected, often by parents, more often by the State; and provisions for handicapped children of pre-school age have only, to a most limited extent, become part of public policy.

The significance of the pre-school years will be briefly indicated for each of the eight major classes of handicap found among school children. No attempt will be made to cover the medical technicalities of this broad subject, but some suggestions of a practical nature will be ventured. Although funds and the administrative equipment are as yet lacking with which to do full justice to the handicapped child of pre-school age, much can be done even with present facilities to improve his status and his outlook. It is important that baby-welfare agencies, public-health nurses, and social workers should do more to direct parents in the

proper care and training of handicapped infants. It is also important that public school provisions should gradually penetrate downward into the nursery period of the children who are peculiarly in need of special educational treatment.

We shall now consider each of the eight forms of handicap listed in the preceding chapter, and indicate the kind of provision that should be made for their pre-school care and education.

1. Blindness

Distribution and cause. From a statistical point of view the problem of blindness in the pre-school period is not so great as it is in later years. Indeed, blindness is peculiarly incident to adult and old age. Only one per cent of all the present blind are under five years of age; but from the standpoint of educational hygiene, which must always regard the individual rather than the mass, this small group of blind young children is extremely important. Moreover, from the standpoint of causation, the pre-school period is very significant. One third of all cases of blindness occur before the age of twenty-one, over one half of the cases occurring before that age come before the fifth year, and over one third before the first year of life.

In about four fifths of the cases of blindness, it is ascribable to disease, and in about one tenth of all the cases there is an hereditary factor at the basis of the disease or the blindness. Best has studied the distribution of the blind by the most important causes, ac-

cording to the age of the loss of sight, and found in substance the following results: In congenital blindness the leading causes are malformations, ophthalmia neonatorum, atrophy of optic nerve, and hydrophthalmus. During the first year of life by far the most important cause is ophthalmia neonatorum. Other causes reported are sore eyes, hydrocephalus and brain fever, cataract and corneal ulcer. From the first to the fourth year external injuries are in the lead, with meningitis, measles, scarlet fever, "sore eyes," smallpox, cataract, and atrophy of the optic nerve as minor causes. External injuries include accidents, and other injuries from burns, firearms, sharp instruments — such as scissors and knives — explosives, flying objects, and falls. About twenty per cent of the cases of blindness occurring in the pre-school years from one to six are apparently due to such injuries. A greater amount of prudence on the part of parents would undoubtedly reduce the amount of blindness from this source. The safety first campaign has further conquests to make in this field.

State laws on blindness. Ophthalmia neonatorum, an inflammatory disease caused by the gonococcus germ, is yielding somewhat to preventive endeavor. Forty States now have laws making it obligatory to report inflammation of the eyes in the newborn. Many States supply a prophylactic solution free by statute or by health regulation. In some States there are special protective measures relating to the practice of midwives. With proper enforcement these laws

unquestionably bring results. The disease has shown some decline, but by no means enough to justify any relaxation of effort on the part of health officers, nurses, and physicians.

In addition to the general compulsory education laws, there are special applications of the laws to the blind in over one half of the States of the Union. These laws, however, do not give recognition to the very great importance of the pre-school period; indeed, in many cases they specify the educational period to be so many years after the age of seven or eight, etc. Nevertheless, the pre-school years are in many respects the most important in the education of the blind child. It is so easy to make the child in this period the victim of unintelligent compassion or of positive neglect, and to plant into his growing character traits which it will be difficult for later reëducation to eradicate. Much of the unnecessary dependency of the blind, many of their psychological peculiarities, and their mannerisms (the so-called "blindisms") are the outgrowth of faulty training in the pre-school years.

The care of blind babies. Dr. Saemisch has therefore made the following general rule for parents in the management of their blind babies: "Treat the blind child exactly as if it were a seeing child." This is a safe rule, with a few reservations which common sense will supply. The important thing in the rearing of a blind child is the protection of his personality. This must be made strong, self-reliant, and happy. He should therefore learn to walk at a normal age,

even though he gets bumps; he should romp, and explore, and play with toys; he should be as active in body and as investigative in mind as a seeing child. He should learn to dress and undress, comb his hair, take care of his person and possessions, keep himself clean, and acquire agreeable habits of deportment. He should not be made conscious of his handicap, but rather of his obligation to take a normal place, with normal responsibilities, in the family life. These are the primary lessons in the formation of his character, and they can be learned in a good home.

If the home is such that these lessons cannot be learned, the child should be boarded out in a competent home, or attend some nursery or kindergarten; or he should be placed in the nursery department of some institution for the blind. A considerate, responsible, domestic home, however, is, for educational reasons, to be preferred to a merely custodial asylum.

The needs of the pre-school blind child are so vital that there is room here for the development of a new kind of home-teaching service. This service as now conducted by State and private agencies is mainly confined to those of adult life; but it should be directed also to the parents of the blind babies and to the infants themselves. Lacking such service, it is incumbent on nurses, social workers, and visiting teachers to impart and to apply these important elementary principles in the mental hygiene of the visually handicapped.

2. Deafness

Distribution and cause. Deafness is in a double sense a problem of the pre-school period. Unlike blindness, the vast majority of the deaf acquire their handicap at birth or during infancy. Figures presented by Best give the following percentages for the different ages: at birth, 35.5 per cent; from birth to two years, 16.9 per cent; from two to four years, 17.1 per cent; from four to six years, 7.3 per cent; making a total of 76.7 per cent for the pre-school period; and only 23.3 per cent for the whole span of school and adult life. In other words, three out of every four of all deaf individuals are so handicapped before their sixth birthday.

Of the 35.5 per cent of cases which occur at birth, a large proportion are strictly hereditary, and probably in the majority of these instances some parental or ancestral deafness will be found. The reduction of these hereditary cases will depend upon the gradual adoption of eugenic safeguards.

Nearly all the remaining cases arise in infancy or early childhood, and are due to infections of the middle ear or of the internal ear. The chief causal diseases are scarlet fever and meningitis. Other diseases which together swell the total are brain fever, typhoid, measles, catarrh, diphtheria, whooping cough, and influenza. The reduction of this group of cases is plainly dependent upon the growth of medical prophylaxis, and the control of complications in these diseases where pre-

vention fails. The major enemies that close the Ear Gate of the City of Man Soul are bacilli.

Important consequences from the defect. As in almost all physical handicaps the most important consequences are of a psychological character, and have to do with the mental welfare of a personality. The most serious of all these consequences are those which concern the production and interpretation of speech, and these are important because they have such a direct influence upon the social life of the deaf. It follows, then, that with the deaf, as with the blind, we should so far as possible treat the child as though he were normal, make him active in mind and body, and give him full opportunities for companionship and responsibilities.

The importance of preserving the health of personality is the strongest argument in favor of the use of the oral method (as opposed to the manual sign method) in the training of deaf children. By means of this method even the congenitally deaf child can acquire some degree of speech; and the semi-mute child who has acquired his deafness after he learned to talk is enabled to retain and to perfect his speech. The same method assists both the deaf mute and the semi-mute to read through sight the speech of others. The psychological importance of developing these speech abilities along natural lines need not be argued.

The oral method of instruction. The most favorable time for giving instruction by the oral method is in infancy and early childhood — before the custom-

ary age when deaf children are sent to institutions. The ideal arrangement for such instruction would be in kindergarten or nursery establishments, and our day classes for the deaf, which are increasing rapidly in our public schools, should make every effort to secure their pupils before the legal compulsory school age. The public schools are apparently in a better position to reach down into the homes and into the infancy period than are State institutions; so the former as well as the latter may develop a type of home teaching which will be of incalculable service to parents and children. Even illiterate parents have sometimes used the oral method with success, and it has been said that the most skillful lip readers have been recruited from those homes where mothers have persistently and consistently used this method from the time the baby suckled in their arms.

The pre-school period is preëminently the period of language development for normal children, and for this very reason it must also be the most promising period for the oral education of the deaf. Teachers, social workers, and nurses may guide parents better to utilize these precious years in behalf of the deaf and semi-deaf. They are also sometimes needed to reveal the presence of deafness where it is not suspected. As Cornell says, "No one has ever recorded that a small child of his own initiative complained of inability to hear."

3. Crippled children

Distribution and cause. We consider a child crippled when he is handicapped because he lacks the normal use of skeleton or skeletal muscles. This handicap, like deafness, occurs more frequently among children than adults. One fourth of the whole crippled population, as shown by the Cleveland Survey, are under fifteen years of age, and in over one third of all the cases the disability originated before the age of five years. About one half of the disabilities due to defect of foot or leg occur before the age of six. It is evident that the problems of prevention and treatment involve to a considerable degree the pre-school period.

A careful analysis of the statistics of causes among the children of Cleveland shows that infantile paralysis is by far the most important factor, accounting for 41 per cent of all the cases. Tuberculosis of bones and joints comes second, accounting for 15 per cent. These two diseases are, therefore, responsible for well over one half of all cases among children. Fortunately, both diseases yield in some measure to preventive control, and skillful medical and surgical care can ameliorate their consequences.

Desirable and possible training. The primary importance of timely medical attention must always be emphasized. Parents and social workers, however, often make the serious error of placing exclusive stress on the medical and surgical aspects. The error is serious, because it means the neglect of mental and

educational hygiene. Although everything should be done to reduce or remove the handicap in a physical sense, our ultimate objective ought to be the training of the child so that he will be a healthy individual in the psychological sense. If his personality is not distorted or crippled, he may still be a useful and happy member of society. The elementary lessons in character formation begin in the nursery period. It is easy to spoil a child in this period; and if he needs, as so often is the case, a somewhat prolonged treatment in an institution, it becomes doubly important that he should not be spoiled, but should acquire habits of self-help, attitudes of self-reliance, and a spirit of conquest toward his physical defect. Fortunately, at least three out of four of all crippled persons over fifteen years of age are probably capable of profitable employment alongside normal persons.

The war has made it clearer than it has been before that the final handicapping effect of disability depends often upon the morale of the individual. Indeed, physical failure, if not too extreme, may actually be the stimulus to a development of intellectual and spiritual power. Adler states this theory of mental compensation, through the intervention of the nervous system, in these general terms: "The realization of somatic inferiority by the individual becomes for him a permanent impelling force for the development of his psyche." If reëducation can build up the morale of a soldier so that he can successfully or even triumphantly carry his disability, it follows that judicious

education in the morale of physically defective children will have a preventive, hygienic value. Morale has been described as a kind of mental preparedness. This policy of preparedness should include the pre-school years, which are often of critical importance.

4. Physically defective children

Great importance of the pre-school period. The term "physically defective" has been used for convenience, in the previous chapter, to include all children so seriously handicapped by malnutrition, cardiac defect, or chronic disease as to be urgently in need of special hygienic or educational arrangements in school. The term loses even this precision when applied to children of pre-school age. It is, however, profitable to ask to what extent is the physical defectiveness of school children traceable to the pre-school period? This simple question has not been adequately reckoned with. Indeed, the future developments in the fields of medical inspection of school hygiene and of social pediatrics cannot be intelligently directed without a frank acknowledgment of the fact that a large proportion of the physical defectiveness of children originates in the pre-school stage of childhood.

The preëminent importance of the pre-school period is concretely shown in the following table which compares in parallel columns the frequency of physical defects in children of pre-school age and of school age. The findings are reported by Dr. Jacob Sobel, of the New York City Bureau of Child Hygiene, and are

based on (1) a study of 1061 children (ages 4 to 6) and (2) 243,416 examinations of school children.

Physical Defects	(1) Pre-School Age	(2) School Children
Hypertrophied Tonsils	26.3 %	15.3 %
Defective Nasal Breathing	23.1 %	11.6 %
Malnutrition (3 and 4)	19.2 %	17.5 %
Defective Teeth	72.6 %	61.8 %
Pulmonary Disease	1.12%	0.19%
Organic Cardiac Defect	0.94%	1.3 %
Nervous Disease	0.66%	0.5 %
Orthopedic Defects	1.12%	0.9 %

Malnutrition. This has recently come to the foreground as a handicap of basic importance, and at present it is being attacked through nutrition classes and educational measures. This is a splendid work, and yet the fact remains that a very large percentage of these numerous under-nourished pupils were under-nourished before they entered school. Furthermore, an equally large number of candidates for the nutrition classes, three or four years hence, are under-nourished toddlers now. The logic of the situation needs very little elaboration. The most important field for the extension of nutrition hygiene is "the gap" between the milk-station period and the first grade. The following statement was applied to Scotland, but it is still true enough of other countries to merit quotation here: "The baby, if he lives, receives a certain amount of daily care in feeding, washing, and clothing, and the school children are made ready for school; but the toddlers from two to five are nobody's care."

Dr. W. R. P. Emerson has listed the following

factors as jointly responsible for the clinical picture of malnutrition as found among school children: (1) diet; (2) health habits; (3) rest and fatigue; (4) home control; (5) special physical defects. It is clear that none of these factors is peculiar to the school period. There are, of course, certain cases which are caused or exacerbated by vicious school conditions, but these are probably more than offset by cases in children of pre-school age which have not enjoyed the normalizing influence of school life. We should, therefore, be attacking the problem of malnutrition more nearly at its source by reaching the children in their pre-school years. It would not require very revolutionary changes in the present technique of infant-welfare and public school work to accomplish the results. Pre-school clinics and children's health centers are pointing the way.

Rickets. Another phase of the great problem of malnutrition is rickets. This common disorder concerns the pre-school period peculiarly. It may not date back to the fœtal stage of development, but it is very characteristic of the ages from six to eighteen months. Although there is still some obscurity regarding its true origin, recent studies have shown that it is clearly a disturbance of nutrition, and one which will yield to control on a large scale through systematic measures, including codliver oil and heliotherapy. Such preventive control will not only reduce the handicap of rickets, but the rachitic complications which increase mortality and later morbidity.

The teeth. Still another aspect of the same great problem of nutrition is represented in dental caries, by far the most common defect in American children. One of our best authorities who has worked on a large scale with school children, and who in the beginning placed great stress upon the importance of cleanliness of the teeth, has come to the significant conclusion that the most important factor in the causation of caries is dietary, and that "correct feeding of a child from birth to twelve years of age would in itself partially, if not wholly, eliminate dental decay."

The development of the teeth, indeed, presents a pretty example of the importance of the pre-school period, and of the temptation to ignore that importance. The cusp or biting surface of the sixth-year molars are formed before the child is even born, and the enamel organ for the wisdom teeth is formed as early as the third year of life. It is quite in harmony, therefore, with the facts of embryology to suppose that the nutrition of mother, infant, and child is a decisive factor in determining the vitality of the teeth. Probably the most foresighted and the most thrifty method of dental hygiene is the improvement of the nutrition of children with milk teeth.

A manual in pediatrics would be required to review all of the chronic and acute diseases which handicap early childhood. Statistical tables analyzing the causes of mortality, and less complete statistical data showing the age incidence and frequency of diseases, reveal with quantitative emphasis the significance of

the pre-school years for bodily health. Medical inspection and health supervision of school children are completely justified only when based upon an adequate preventive program of health supervision of the pre-school period.

5. Mental abnormality

In its broadest sense the term "psychopathic" includes all forms of mental abnormality, not only the definite mental diseases (the psychoses) which come to the attention of the court and the physician, but the less pronounced disturbances which express themselves in various forms of "nervous" invalidism and mental inefficiency.

On first impression no problem would seem to be more remote from the scope of pre-school hygiene than that of "insanity." Senile dementia seldom occurs before the age of sixty; involution melancholia, seldom before forty; over half of the cases of general paralysis are seen between the ages of thirty-five and fifty; of all the cases of dementia præcox and manic-depressive psychosis, more than half develop before the age of thirty (Rosanoff). From statistics it appears (in New York) that only one psychotic child under fifteen is admitted for hospital treatment per 200,000 of population. Furthermore, a considerable proportion of the various insanities are caused by such factors as hereditary predisposition or transmission, alcoholism, syphilis, drug addiction, and head injuries.

Environmental influences of early childhood. A

closer analysis of the situation will, however, reveal that there is an important group of mental disorders, the psycho-neuroses (the hysterias, neurasthenia, psychasthenia) and certain forms of dementia præcox in which environmental and educational factors play an important rôle. In many of these instances the origin of the conditions may be chiefly psychogenetic, and the date of genesis may go back to very early childhood. This must also be true of innumerable border-line conditions, in which the individual does not manifest a frank psychosis, but is maladjusted, and inadequate in his social behavior. It is disorders and deviations of this character which are most subject to control, and will respond to preventive and ameliorative treatment. It is in this domain of mental hygiene that the pre-school period again asserts its fundamental importance.

It is unnecessary to accept uncritically the doctrines and interpretations of psychoanalysis, but we are compelled to recognize the justice of an emphasis upon infancy in any dynamic or behavioristic type of psychology. We must at least subscribe to such a conservative statement as the following one from the well-known British psychiatrist, Dr. Richard Rows. The statement occurs in an address on "The Biological Significance of Mental Illness," made at the recent celebration of the one hundredth anniversary of the establishment of the Bloomingdale (New York) hospital:

> Of special importance also are the experiences of childhood. An unhappy home or unjust treatment as a child may warp

the development of the personality, lead to a lack of self-confidence, to the predominance of one emotional tendency, and so prevent that balanced equilibrium which will allow a rapid and suitable emotional reaction such as we may consider normal. This may lead to a failure of development or a loss of the sense of value, because the existence of one dominating emotional tendency so often produces a prejudiced view which may render a just appreciation of our general experience almost impossible and may sericusly disturb our mental activity.

Rows himself illustrates the truth of this by describing the case of a mentally ill woman in whom "the germ of her serious breakdown thirty years later was laid in her fifth and sixth years."

In somewhat the same strain Freud has said: "The little human being is frequently a finished product in his fourth or fifth year and only reveals gradually in later years what has long been ready within him."

Important responsibility of the home. To give the broad psychological principles above suggested immediate practical application would be a prodigious task, because it would involve the reëducation of countless parents who are unconsciously moulding the character of their children in the pre-school years. But if the principles are true they must at least guide us. They will serve to place in a new light the responsibility and power of the home, the great value of all social work which improves family welfare, and the importance of recognizing psychoneurotic symptoms in their earliest stage. Such symptoms are often overlooked and "dismissed as signs of badness or naughtiness." Whether the symptoms come to clear

clinical expression or not, there is only one safe rule. We must have due respect for both chronic and episodic abnormalities of conduct even in young children, and should shape our nurseries and kindergartens so that they may serve a more premeditated function in the field of mental hygiene.

6. Delinquency

Age and causation factors. The general observations made with reference to psychopathic conditions apply to the problem of delinquency. The whole subject is so complicated that very few generalizations may be ventured. Frequently crime has an entirely adult setting and background; but it is coming to be recognized that many adult delinquents were juvenile delinquents, and that the most promising field of prevention is that of juvenile delinquency. Here again the causation factors often appear to be peculiar to adolescence. Frequently, also, the genesis of the delinquent career can be readily traced to the period of childhood, preceding adolescence. The history of the case reveals prodromal symptoms at the age of eight and nine, and we are justified in saying that the potential delinquent boy of that age is a particularly promising subject for reform or guidance.

The home and delinquency. Now, whether the delinquent traits in many of these cases could be traced still farther back to the pre-school period is a fair problem for consideration. The concept of delinquency when applied to very young children may

only confuse us and obscure the true facts, but the concept of character formation is one which cannot be pushed too far back. Character in the psychological sense, and even in the ethical sense, has roots which go down to the cradle. The elementary lessons of obedience, inhibition, poise, self-control are normally learned in the nursery period, just as elementary speech is then acquired. The child does not learn all he is ever going to say in that period, but the instrumentality and to no small extent the very manner of his subsequent speech are then established. So in the field of conduct. Social attitudes, personal prejudices and predilections, and the balancing of emotional tendencies are in broad outline determined before school entrance. Later delinquencies may be but symptoms of irritabilities and inharmonies which date back to an abnormal home life.

This is all vague enough, and common sense must save us from errors of emphasis; but kindergartner, nursery matron, and parent cannot safely ignore persistent behavior anomalies and conduct disorders in the pre-school child. Such symptoms may have a prognostic import.

7. Speech defects

Distribution and cause. Speech defect is unquestionably a problem which concerns the hygiene of the pre-school period. This period is preëminently one for the acquisition of oral speech, the most distinctive and in many ways the most complex of human accomplish-

ments. From the first birth-cry to the busy questioning and sound plays of his kindergarten years, the normal child is steadily engaged in the task of acquiring the elementary technique of speech and of language. Instinct aids him, evolution has imparted to his nervous system both the propensity and the capacity to talk, but to no small extent speech is an art which has to be learned anew by each individual. It is not purely automatic, and full perfection comes to but few.

Mild imperfections of speech and deficient voice control are extremely common, and over two per cent of all school children are reported as being speech defective. Sometimes these defects have been attributed to faulty school hygiene and to unwise methods of teaching spelling and reading. There is no doubt that our public schools have very much neglected standards of oral expression, but there is good evidence that the overwhelming proportion of speech defects originate in the pre-school period. Wallin, who made an extensive census of speech defects in St. Louis school children, found that 81.4 per cent of all the cases of stuttering began before the age of six; only 15 per cent between the ages of six and ten; and 3.4 per cent after ten. The figures for lisping emphasized even more strongly the significance of the pre-school period. The term "lisping" was used in its technical sense to include all forms of faulty articulation, inabilities and difficulties of pronunciation, slurring and sound substitution. It was found that 96 per cent of

the "lispers" began to lisp before the age of six; 3.2 per cent between the ages of six and ten; and .8 per cent after the age of ten.

Combining these figures we are compelled to recognize that at least fifteen out of every twenty cases of speech defect originate in the pre-school period. These defects are not, of course, equally important. Stuttering is usually much more serious than lisping. By stuttering is meant an uncontrolled or spasmodic repetition of sounds, syllables, or words. About five children out of one thousand are affected with mild stuttering, and two out of one thousand with stuttering of a severe character. About fifteen more children are affected with various forms and degrees of lisping.

It is difficult to analyze briefly the different causes for these speech defects. In stuttering the following factors may operate singly or in combination: nervous shock, intense fear, anxiety neurosis, exhaustion diseases, neuropathic disposition, and imitation. Mental factors are very important, and one authority has gone so far as to describe stuttering as "a diseased state of mind which arises from excessive timidity." Another writer refers it rather vaguely to an abnormality in the "region of personality."

A problem of reëducation. Only a very small proportion of all speech defects can be ascribed to malformations of the speech organs, to specific paralyses, or to tied tongue. Practically all cases of lisping are functional in character, due to subenergetic phonation, absence or faultiness of imitative standards, lack of

ear conscience, persistence of baby talk, lack of physical tone and lack of emotional tone, defective breath control, etc.

It is difficult to generalize in this field; each case, whether of stuttering or lisping, is individual. It may have a medical aspect, but usually the problem is one of education or reëducation, and often the approach is indirect. Fortunately, most speech defects are definitely curable, and many are as definitely preventible. It ought to become part of our general Americanization program as well as general health program to insist on better opportunities for conversational English in the early years of childhood. Surely the primary teacher ought not to attempt to teach the pupils to read and write before they have really learned to talk, and kindergartners should make oral expression one of the chief objectives of their educational program. If nurseries and kindergartens meet the responsibility which is before them in this important field, they will not only improve the speech of all of their immediate charges, but may aid in the development of corrective measures which will reach the speech defective while still of pre-school age. Timely recognition and timely treatment here as elsewhere make for larger results at a smaller outlay.

8. Mental deficiency

Causes and treatment. Nearly all cases of mental deficiency are recognizable and become established before the age of six. In about three cases out of four

the causal factors are hereditary; in one case out of four we have to reckon with some inflammatory or toxic disease, or some traumatic damage which usually occured at birth or early childhood and brought about an actual destruction of brain tissue or an arrest of its development. Feeble-mindedness is always associated in some way with an incomplete development of the cerebral cortex.

The control and treatment of feeble-mindedness, therefore, must take due account of the pre-school period. The wisdom of ample public school provisions for mentally deficient pupils is becoming gradually more evident. It serves no purpose to emphasize the fact that feeble-mindedness is incurable. It is more important to recognize that most feeble-minded children respond to the right kind of training, and that, with certain readjustments and safeguards, they may maintain a place for themselves in community life. It is one of the functions of the public school system, both through State and local agencies, to provide special occupational training and perhaps even to assist in the vocational guidance and supervision of pupils who have had this training.

Pre-school treatment and training. Inasmuch as proper training has unquestionably demonstrated its efficacy in the case of the mentally deficient children, it is natural to ask whether we can afford to neglect as completely as we do the pre-school development of these children. The present tendency is to delay their school entrance. They are usually slow to hold up

their heads when babies, slow to sit up, slow to walk and to talk, and likewise slow to go to school. If a zealous parent enters a defective child in kindergarten at the legal age, the child is frequently sent home to wait another year, and even the special classes may exclude such a child on the plea that he is too young and that he will be more ready in a year or two.

It may be questioned whether this policy is altogether justified, at least from the viewpoint of the educational psychology of the feeble-minded. Would it not be educationally advantageous to furnish a sub-kindergarten type of training for the mentally subnormal in their nursery years? These are the years when they are most likely to be neglected or misunderstood. The defective child from three to six years of age frequently gets severe corporal punishment because he is not understood by his own father and mother, and it is during these years that he may be peculiarly troublesome at home. Sometimes the situation drifts into one of unconscious cruelty to the child and extreme vexation for the parent.

Parental guidance. Many a mother who will not, and probably should not, send her defective child to an institution is entitled to some form of community assistance. More should be done to provide nursery facilities for subnormal children, and by concrete guidance to aid the mothers in the task of caring for such children at home. Too frequently diagnosis and advice are not forthcoming until the child has become of school age. This fact, which I have often observed

in my own experience, betrays a serious defect in our present administration of child hygiene. Feeble-mindedness is a developmental defect which, no less than rickets, should have the benefit of early diagnosis. To be sure, we cannot cure feeble-mindedness, but by timely diagnosis we can bring it under better control and may render a service to parent and child alike. And how much we could do in an educational way by giving more systematic attention to the pre-school years of the defective child, no one knows.

General conclusions. The net result of this survey of the status of the handicapped child of pre-school age leads to a few general conclusions and suggestions. It appears that he is in a somewhat precarious position, and that he may become a victim of hardship and sometimes of actual injustice. He has no school status, and in a legalistic sense he has no educational rights, even though he may be peculiarly entitled to them. Whether he will receive medical attention will depend upon the quality and severity of his handicap and the perception of the physician. The psychological and educational aspects of his condition are in danger of being ignored, even when his physical welfare is not neglected. A careless faith is placed in the vague formula that he will outgrow his difficulties as he gets older.

Imperfect as our knowledge is concerning the development of young children, it is in advance of our provisions for their welfare, and this knowledge

should be more deliberately applied as part of our social policies. In the effort at application we shall come nearer to a solution of the problems involved. We should develop a specialized type of nursery and kindergarten service, which will be neither purely custodial nor conventional, but which will aim by educational procedures to reduce developmental handicaps and demonstrate how similar measures can be introduced into the home. Even one specially trained expert kindergartner in a large city could render incalculable benefit to mothers of defective children, through methods of conference and demonstration.

The solution of the problem, after all, does not involve a staggering institutional program, but is rather one of engineering, and requires a special adaptation of the same technique which is being so successfully worked out in the field of the visiting nurse and the visiting teacher. Public-health nurses should in general be better trained to perceive developmental defects in young children, and should play a more active part in this new kind of family-welfare work.

A consecutive health and development supervision of pre-school children, the hygienic regulation of school entrance, a special adaptation of nursery and kindergarten methods in behalf of exceptional children, educational social workers in the field of infant welfare, and special mobile teachers for home visitation and home training — these are some of the possibilities which a public mental hygiene of the future may have in store.

CHAPTER VIII

PRE-SCHOOL CHILDREN DEPRIVED OF PARENTAL CARE

Social significance of this problem. There is one type of handicap which has not been touched upon in the previous chapters, but which is so frequent and socially so important that it deserves separate consideration. We refer to the great numbers of children in town and country who, on account of adversity or bereavement, are deprived of the fundamental safeguard of parental care. It is difficult to give adequate statistics on this point for the whole nation, but the relative size of the problem is indicated by the following round figures which apply to the State of Connecticut. One child in every thousand is receiving institutional care; the total number of children in State institutions is five thousand. Three fifths, or three thousand in all, are in institutions because of dependency or neglect. These figures take no account of a large but indeterminate number of similar children who are not receiving official State care and supervision.

From the very nature of this handicap there is no field of child welfare in which the State through its laws and agencies must more completely function *in loco parentis*. There is also no field in which social remedies and relief measures can less afford to ignore the

importance of the developmental hygiene of the preschool period.

Scope of the problem. The scope of the problem is indicated, in a concrete manner, by the following definitions recommended by a report of the Connecticut Commission on Child Welfare. These definitions include all children who have lost or are in danger of losing the normal developmental safeguards of parental care.

1. Dependent child. A dependent child is a child whose home is a suitable place for such child save for conditions arising from the poverty of its parents, parent, or guardian, but who, solely because of the poverty of its parents, parent, or guardian, is in need of care.

2. Uncared-for child. An uncared-for child is a child:

(a) who is homeless, or whose home is unsuitable, due to death of parents, parent, or guardian; or

(b) who is homeless because of the fact that the persons liable for his support are inmates of charitable, humane, remedial, or penal institutions; or

(c) who cannot be cared for in his own home, due to the unsuitability of such home because of the mental or physical infirmity of parents, parent, or guardian; and who may not lawfully support himself without becoming chargeable with neglect as defined in section 5, paragraph (i) of this Act. Provided, that this definition shall not be construed to include a child who must be removed from his home for purely temporary causes.

3. Neglected Child. A neglected child is a child:

(a) who is abandoned and who may not support himself lawfully without becoming chargeable with neglect as defined in paragraph (i) of this section; or

(b) who is living in a house of ill-fame, or with vicious, disreputable, immoral, or criminal persons; or

(c) whose home, by reason of the improvidence, depravity, neglect, or cruelty of parents or legal custodians, is unfit; or

(d) who is permitted by parents or legal custodians to grow up in idleness, vice, or crime, or under conditions exposing him to idleness, vice, or crime; or
(e) who begs or receives alms; or
(f) whose parents when able to do so refuse to provide surgical, medical, or other remedial care of which the child is in need; or
(g) who is in need of special training because of mental defectiveness, and whose parents refuse to provide such training or to make application for the admission of such child to the State school; or
(h) whose home environment, social environment, or both is such as to warrant the State in assuming guardianship; or
(i) who engages in any occupation illegally, or legally under conditions prejudicial to his normal development, physically, socially, mentally, and morally; or
(j) who is born out of wedlock and may not support himself without becoming chargeable with neglect as defined in paragraph (i) of this section.

Though framed in unemotional, legal phraseology, the above definitions clearly reflect the seriousness and complexity of the task of securing adequate protection to children who have been deprived of normal parental care. This deprivation bears with disproportionate weight upon children of pre-school age.

Home care and mothers' aid. During the past century there has been, on the one hand, a steady development of laws and machinery to enforce parental obligations, and, on the other hand, a tendency to provide congregate institutions for the care of children deprived of their natural homes. It was the ominous growth of the latter tendency toward institutionalization which led to the White House Conference of 1909, called by President Roosevelt. This conference pro-

posed that children should not be deprived of natural parental care except for inescapable reasons; that (through private funds) mothers should be aided to maintain their homes; and that orphaned and otherwise dependent children should so far as possible be placed in suitably supervised homes rather than institutions. Miss E. O. Lundberg notes that there was strong sentiment against mothers' aid through public funds at the time of the conference; but since then forty States and Alaska and Hawaii have embodied the idea of State mothers' aid in their legislation. The Children's Bureau Conference, in 1919, reaffirmed most of the conclusions of the White House Conference of 1909; but went definitely on record in favor of mothers' pensions in this statement:

> Home life which is, in the words of the conclusions of the White House Conference, "the highest and finest product of civilization," cannot be provided except upon the basis of adequate income for each family.
>
> The policy of assistance to mothers who are competent to care for their own children is now well established. It is generally recognized that the amount provided should be sufficient to enable the mother to maintain her children suitably in her own home, without resorting to such outside employment as will necessitate leaving her children without proper care and oversight; but in many States the allowances are still entirely inadequate to secure this result under present living costs. The amount required can be determined only by careful and competent case study, which must be renewed from time to time to meet changing conditions.
>
> Unless unusual conditions exist, the child's welfare is best promoted by keeping him in his own home. No child should be permanently removed from his home unless it is impossible so to reconstruct family conditions or build and supplement family resources as to make the home safe for the child, or so

to supervise the child as to make his continuance in the home safe for the community. In case of removal, separation should not continue beyond the period of reconstruction.

The aim of all provision for children who must be removed from their own homes should be to secure for each child home life as nearly normal as possible, to safeguard his health, and to insure for him the fundamental rights of childhood. To a much larger degree than at present family homes may be used to advantage in the care of such children. The stay of children in institutions for dependents should be as brief as possible.

Causes for institutional commitment. What are the causes which thrust the children into these institutions?

A study of 157 unselected cases committed to county homes for dependent children in Connecticut showed that the immediate reasons for commitment were distributed as follows:

1. Death of father	12	6. Drunkenness	
of mother	26	of father	8
of both	1	of mother	6
	21.8%	of both	2
			10.2%
2. Desertion of father	9		
of mother	10	7. Character defects	
of both	1	of father	4
	12.7%	of mother	17
		of both	14
3. Separation, 5 or	3.2%		22.3%
4. Illness of father	2	8. Incorrigibility of	
of mother	7	child, 3, or	1.9%
of both	0		
	5.7%	9. Not classified 18, or	11.5%
5. Insanity or feeble-mindedness			
of father	1		
of mother	11		
of both	0	Total	100%
	7.7%		

Mental status of dependent children. The proverb says misfortunes never come singly, and the same might be said of the handicaps of childhood. This is particularly true of "dependency," which is very frequently found to be associated with physical and mental defect. Syphilis, tuberculosis, and serious malnutrition are more common than among unselected children, and likewise mental dullness and deficiency. The Yale Psycho-Clinic recently made a study of the mentality of 198 dependent children who had been committed to an orphan asylum and two county homes. It was a representative group of dependent children, recruited from both industrial and urban communities. Although they were all above preschool age, the results of the study give an approximate picture of the individual differences in mental status to be expected in any large group of "dependent" children of any age whatsoever.

The estimate of mentality was based upon the Stanford Revision of the Binet Measuring Scale of Intelligence. A slightly abbreviated version of this scale was employed and the mental age of each child was determined. The intelligence quotient (I.Q.) was then computed. This is a convenient index of the intelligence of any given case. It represents a ratio between mental age and chronological age. If the numerator and denominator in this ratio are equal we get unity, or 100 per cent, or an I.Q. of 100. If the numerator (that is, the mental age) is 2 and the denominator (that is, the chronological age) is 3, we get

a value below 100, an I.Q. of 67. If the conditions are reversed, and the numerator is 3 and the denominator 2, we get an I.Q. of 150, which indicates a very superior intelligence. An I.Q. of 67 or less, however, most frequently means feeble-mindedness.

I.Q. distribution curve. A plotting in one curve of the I.Q. of all 198 cases of dependent children above mentioned gives a normal surface of frequency, with a range from 37 to 122, median at 81, and mode in the 76–85 group. [For graph and details, see report by Margaret Cobb, 1922.] This is a curve very similar to that obtained by Terman from 905 unselected school children, except that it is shifted a considerable distance down the scale. With Terman's cases the range covers nine groupings of 10 points each, as it does with ours. But his range is from 56 to 145, while ours is from 36 to 125. Terman's mode is the 96–105 group; ours the 76–85 group. For this group of 198 children, then, the normal is 20 points below the normal for unselected children, with a corresponding distribution about this mode.

These figures are in complete accordance with the author's findings in a similar survey of the mental status of 100 New Haven County Home children. This study led to the general conclusion that average mentality among county home dependents is about as rare as brightness among ordinary children, while dullness and near-deficiency are as frequent as the normal average. Likewise, definite mental deficiency appears to be as frequent as dullness ordinarily is. In-

asmuch as all cases of mental deficiency are either hereditary, or date from infancy and early childhood, the statistics just cited give a fair picture of the preschool as well as the school period.

The character development, the educational capacity, and the placement outlook of dependent children show differences no less significant than those which have been given for "intelligence." For example, on the basis of the examination of the 198 cases above mentioned, Miss Cobb concluded that 18 per cent of the children would derive greater benefit from special class training than from ordinary school instruction; that 21 per cent could probably finish fifth or sixth grade and profit by practical continuation instruction; that 35 per cent gave promise of completing the grammar grades, supplemented with vocational and trade instruction; that 7 per cent would be competent to finish a high-school course, and 17 per cent more part of a high-school course; and 2 per cent apparently had mentality that would qualify them for college training.

Importance of proper home placement. Although it is most undesirable to make rigid classifications, and unnecessary to attempt precise predictions, our policies with respect to dependent children should take due account of all differences of this character. The principle of placement in supervised family homes should be applied to the utmost practical limit, but also with due regard to the physical and mental status of the children. In cases of doubt, home placement

should always be given a trial. More frequently than we may realize, the symptoms of mental dullness and inertness of dependent children rest on habits of inhibition and inferiority which will respond to reëducation in a favorable foster home.

The more superior a child is, the more urgently does he demand placement in a home with optimum opportunity. The more defective a child is, the less he is harmed by institutional care. Indeed, he may be very much benefited by institutional training. We should not, however, go on the theory that all mentally deficient and border-line children are non-placeable. As a matter of fact, we should develop a differential type of placement, with quasi-probationary safeguards, for large numbers of children who are neither candidates for institutions nor for ordinary foster homes. While children are still of pre-school age, however, we need to make only a comparatively few exceptions to the rule of family home placement.

Social neglect of pre-school dependents. The infant deprived of ordinary parental care presents a pathetic picture of human helplessness, and yet it is these very infants who, as a group, often receive the least effective protection from the State. There is scarcely a State in the Union where it would not be possible to find instances of appalling abuse and negligence surrounding the care of babies and children under four years of age. In many States the number of such instances would be found to be incredibly large. In a few States laws of license and supervision,

firmly enforced, are reducing the abuses to a civilized minimum. Neglect and abuse of children of pre-school age come to their most disgraceful, even if somewhat picturesque, expression in the old-fashioned baby farm which is far from extinct. The following is from a very recent report of a child-welfare commission.

Information as to the extent of baby farming and the location of these homes was obtained from the various private agencies and the visiting nurses association of . . . and . . .

Fifteen homes were visited, and the number of children cared for varied from two to twelve. There were thirty-nine children in all; most of them under two years of age. Most of the homes were located in . . . and . . . The latter place is apparently a paradise for women wishing to board babies without interference from authority.

There is some attempt in . . . and . . . to keep in touch with the women who make a business of boarding children, through the city department of charities, but the importance of strict supervision of these homes is overlooked. In . . . these homes are allowed to flourish without restraint unless an active complaint is brought up, when the matter is referred to the Humane Society and to the State Board of Charities.

The agent secured the following information by representing herself to be a young woman looking for a home for the infant daughter of a friend. No State visitor, as such, would have been able to get by the front door.

Mrs. B.'s baby farm. In her travel the agent finds the Home of Mrs. B., who for many years has run a baby farm, and at the date of this recital was "taking care" of thirteen children under seven years of age, most of them infants. Of this home she says:

In a recent visit to this home the visitor found that the history of Mrs. B. was much like the history of other women who are engaged in the baby-farm business. She is a large

Irish woman, ignorant, but confident that she knows more than any one else about the care of babies — remarked that she never had to have a doctor for the children as she knew more about their feedin' than any doctor did. She was quite willing to take a baby only a few days old; in fact, preferred them as young as possible. "It is all nonsense, this doctor's advice to mothers to nurse her baby for two weeks if she has to board it out — makes it hard for us women to break 'em into the bottle then."

While Mrs. B. was enlightening the visitor on how to feed children, three babies of about fifteen months were crawling on the floor near the visitor's chair. All looked pale and malnourished. Their arms and legs were soft and flabby. All of them were drenching wet and dirty. One of them had several boils on his body and a rash on his hands and wrists. It was evident, from the appearance of these babies and from the fact that Mrs. B. had no one to help her, that they had scant attention.

The B. house was small, and from where the visitor sat most of the kitchen was in view. Three little children — all about two years of age — were running and playing with each other there. At one side was a large coal stove covered with kettles of steaming food and water. Had one of the children, in a moment of play or curiosity, reached up for a handle which extended beyond the stove, no one could have been swift enough to save the child from scalding. Under the sink in the kitchen was a large pile of soiled diapers. On the drain board were two rows of nursing bottles and nipples not yet washed.

There is one small attic-like room upstairs, and here all the little beds have been arranged. The beds are crowded together, and indications are that Mrs. B. knows nothing of the air space needed by each child. In summer, when the very warm weather comes, there is nothing to protect this room from becoming insufferably hot. Neighbors testified to the fact that small babies cried and fretted through the long hot nights with nothing done to relieve their discomfort.

Many of Mrs. B.'s children are deserted by their parents after a year or so, and Mrs. B. has undertaken to place these children in homes for adoption. She never hesitates to take a baby under any conditions, because she can always find —

perhaps with profit — a home if the child is abandoned. Mrs. B. makes it easy for a woman to relieve herself of the responsibility of providing for her own child by offering to clothe it and assuring the mother that she can find good homes if she cannot support the baby.

"Good-bye, Mrs. B." "Good-bye, be sure to let me know if your friend ain't goin' to bring her baby to me so 's I won't miss takin' the other two babies, but I 'd rather have your friend's baby because it is so young and would be easier to break into my ways." The visitor departs wondering how much longer the State will continue to let Mrs. B. "break babies into her ways"!

We should not be inclined to quote the above "story" if it had come from one of Dickens's novels, or even if it disclosed extremely exceptional conditions. It is, however, sufficiently typical to strengthen the argument for a policy of vigorous supervision over the welfare of dependents of pre-school age.

Licensing of baby homes. It is possible to license boarding-homes for babies. It is also possible to inspect them, and to enforce minimum standards as to sanitation, medical and nursing attendance, and equipment. Such measures make for decency and actually reduce infant mortality; but it has been found that even in highly improved institutions, unless the ratio of babies to attendants is extremely low (about 1 to 4), it is impossible to keep the mortality rate from rising above the average level. It seems that babies are not vegetables, after all, and that even their physical welfare demands an environment which is equivalent to a home and a mother.

Mental hygiene in relation to family life. Even assuming that the physical conditions of institutional

care could be made so aseptic that the children would physically survive, we should still have to reckon with the welfare of their mental life. This phase of the subject is always in danger of being neglected, and, though it is important for children of any age, it is of profound significance for children of pre-school age. The body thrives on milk, but the mind on personal relations. The dependence of a baby on a personal environment is almost as close and direct as was the placenta of the baby to its host. The affection, the handling, the ministrations, the language of parental care together constitute the very matrix for the early growth of mind and character. The docility of the child and the solicitude of the mother establish an interdependence ordained by instinct and perfected by tradition. Brothers, sisters, the father, toys, house, garden, street, all become interwoven into this relation, and contribute to the kernel of the growing personality. Through these influences the child becomes anchored to his home and acquires a fundamental trust in life. In many subtle ways he also acquires permanent predispositions. Take all these influences away or distort them, and the result is a starved or distorted personality. Better fortune in later years may compensate, but it can never replace the value of normal domestic experience in the pre-school stage of life.

These are by no means sentimental considerations. They are psychological facts from which there is no escape if we are to regard the mental hygiene of the

child. If we have to neglect dependent children, let us neglect those of maturer years; the pre-school period is developmentally of such basic importance that it deserves our primary concern. Miss Jessie Taft, who speaks from a wide and first-hand experience, sums up much in the following paragraph.

> The case worker with dependent children faces a peculiarly difficult situation in that the dependent child, by virtue of his very dependency, is always potentially a behavior problem. The family background, on which the mental health of every child must largely depend, is in his case inevitably distorted. Thus at the very root of dependency is the soil of potential maladjustment. The normal child develops in strength and confidence on the basis of the security and assurance that the mother and father supply. He has the possibility of achieving a wholesome and necessary sense of power because he has this stable foundation on which to fall when his sense of safety is threatened. He can be sure of his home. It will not vanish overnight. Father and mother are all-powerful and can save from every ill. The family may oversupply the love and backing which the child demands and make a weakling of him, but, on the other hand, the absence of such an assurance of safety is equally fatal to the growth of a normal and free, outgoing energy. The child who lacks this fundamental protection becomes at once a prey to fear, uncertainty, and inferiority.

Children born out of wedlock. It remains to discuss the welfare of one group of neglected children who come into the world unwelcomed, undesired, and at present under such hazards that only seven out of every ten survive the first year of life. We refer to children born out of wedlock whose fate hangs so largely upon the hygiene of their early years — and early months.

Within recent times "illegitimacy" has come to be recognized as a definite, though most baffling social problem. There are, in the United States, about 9,000,000 single, widowed, and divorced white women of child-bearing age. In the sixteen States for which figures of illegitimate births were obtained, the rate per thousand of these women was estimated at 3.7 per cent. The annual estimated number of white illegitimate births in the United States may be estimated at 32,400. The estimate is conservative, because of incomplete and erroneous birth registration.

Factors in this problem. The control of this problem involves many factors. In an investigation made in Boston, it was found that one fifth of the mothers of infants born out of wedlock were below normal mentality, and that 8.8 per cent were diagnosed as feeble-minded. In a study of 2178 children born out of wedlock and under the care of Boston social agencies, it was found that the mothers, fathers, or maternal grandparents of 62 per cent were alcoholic, immoral, or otherwise delinquent, or of poor character. The community supervision or segregation of feeble-minded girls, and ample public provision and regulation of recreation, will reduce immediately and perceptibly the amount of illegitimacy. Another line of preventive work would be a more nearly universal education of all high-school and continuation school youths, both boys and girls, in "the opportunities and privileges of a deliberate and responsible parenthood."

But we are, in this chapter, more interested in the problem of illegitimacy as it affects the child. As Dr. W. Leslie Mackenzie said in his report on conditions in Scotland, it is in many respects less difficult to make provision for the mothers, in spite of all the difficulties that assail them, than for the annual crop of babies.

> The mothers, however they are provided for, can at least fight for their lives and often attain to a passable living. The new-born infant can do nothing for himself. He hangs on the service of others. Within hours of his birth he may be taken from his mother's breast and put among those whose skill is often no substitute even for an unskilled mother's care. He may pass from hand to hand and from place to place. Besides the risks he has encountered in coming to birth, he encounters a thousand others that fall only to the children of the unmarried. If, starting from the same line, he loses in the race with his legitimate fellows, it is from no fault of his own. He has not sinned, but he comes short of the glory. That is the tragedy of the unmarried mother's child.

Infant mortality and legislative protection. The handicap of birth out of wedlock promptly writes its effects into the infant mortality statistics. In England and Wales the annual average number of deaths under one year per 1000 live births is for the legitimate group about 100, and for the illegitimate, over 200. Corresponding figures for Boston (1914) were 95 and 281; for Baltimore (white, 1915), they were 95.9 and 315.5. The child born in wedlock, therefore, commonly has from two to three times better chance to survive the first critical year of life. The better chance is his chiefly because he is not deprived of natural parental care. To protect the rights of the child born out of

wedlock, we must in some way soften the stigma which attaches to him and often prevents the mother from caring for her child with "decent dignity." This must be done for the sake of the child, if for no other reason, and without compromising on the standard of monogamy.

Perplexing and grave as the whole problem is, there appears to be no controversion of a statement of Mr. Ethelbert Stewart: "There may be illegitimate parents — there can be no illegitimate child." This statement is quoted by Miss Julia Lathrop, former chief of the Children's Bureau, who through her bureau has been commendably active in improving the status of children born out of wedlock. As early as 1918 she issued a translation of the Norwegian laws concerning illegitimate children (1915), and referred to them as "the first complete national recognition of the inherent right of the child to nurture, protection, and education, irrespective of this parentage, and of the State's responsibility for ascertaining parentage and for holding both parents equally and continuously responsible for the illegitimate child."

Care of children born out of wedlock. During the last few years there has been much discussion and legislation directed toward adequate protection of the illegitimate child, and, however divergent many views of the problem still are, there is a consensus of approval of the minimum standards for care of children born out of wedlock, as drawn up by the Washington and Regional Conferences on Child Welfare held

under the auspices of the Children's Bureau, in 1919:

The child born out of wedlock constitutes a very serious problem, and for this reason special safeguards should be provided.

Save for unusual reasons both parents should be held responsible for the child during his minority, and especially should the responsibility of the father be emphasized.

Care of the child by his mother is highly desirable, particularly during the nursing months.

No parent of a child born out of wedlock should be permitted to surrender the child outside his own family, save with the consent of a properly designated State department or a court of proper jurisdiction.

Each State should make suitable provision of a humane character for establishing paternity and guaranteeing to children born out of wedlock the rights naturally belonging to children born in wedlock. The fathers of such children should be under the same financial responsibilities and the same legal liabilities toward their children as other fathers. The administration of the courts with reference to such cases should be so regulated as not only to protect the legal rights of the mother and child, but also to avoid unnecessary publicity and humiliation.

The treatment of the unmarried mother and her child should include the best medical supervision, and should be so directed as to afford the widest opportunity for wholesome, normal life.

Minnesota, North Dakota, and Maryland have taken important legislative steps toward the realization of the above principles. In many States the laws and customs for dealing with the problem are still archaic.

Child adoption

Adoption, in legal phraseology, is defined as the act by which relations of paternity and filiation are

recognized as lawfully existing between persons not so related by nature. The child, as the probate law phrase puts it, becomes, on adoption, "as though born in wedlock." This legal fiction traces back to very primitive times. It was in various forms important for the organization of early society. It is socially of considerable importance to-day as a means of multiplying the stabilizing and cohesive relations of the family institution. Marked as the recent movement toward home placement has been, we have only partially realized all the social advantages that would go with a wider use of the beneficent institution of adoption.

The benefits of adoption are great, acting mutually on parent and child. But the responsibilities are also great, and the child must be safeguarded against the effects of hasty, ill-advised legal action. Miss Lundberg therefore writes that the most constructive feature of adoption laws, which is being gradually placed on the statute books, "relates to investigation prior to legal adoption, both of the necessity for parental relinquishment and the character of the foster home, also a required probationary period before final adoption can be granted." The necessity of such safeguards is partly borne out by the interesting historical fact that among the Romans, from whom our adoption laws descended, the motive to the act of adoption was not so generally childlessness, or the gratification of affection, as the desire to acquire certain civil rights.

The Minnesota law as to adoption. Adoption is

now regulated by statutes varying with the different States of the Union. State supervision is relied upon in the progressive States to secure proper application and enforcement of the laws. A bureau of child welfare or corresponding department is the natural agency for such supervision. The 1919 law of Minnesota may be cited, in part, to indicate the best type of practice. It reads:

Adoption — Petition and consent. Any resident of the State may petition the District Court of the county in which he resides for leave to adopt any child not his own. If the petitioner be married, the spouse shall join in the petition. All petitions for adoption of a child who is a ward or pupil of the State Public School shall be made jointly by the person desiring to adopt such child and the superintendent of the State Public School.

Investigation by board of control. Upon the filing of a petition for the adoption of a minor child the court shall notify the state board of control. It shall then be the duty of the board to verify the allegations of the petition; to investigate the condition and antecedents of the child for the purpose of ascertaining whether he is a proper subject for adoption; and to make appropriate inquiry to determine whether the proposed foster home is a suitable home for the child. . . . No petition shall be granted until the child shall have lived for six months in the proposed home. . . .

Consent when necessary. Except as herein provided, no adoption of a minor shall be permitted without the consent of his parents, but the consent of a parent who has abandoned the child, or who cannot be found, or who is insane, or otherwise incapacitated from giving such consent, or who has lost custody of the child through divorce proceedings or the order of a juvenile court, may be dispensed with, and consent may be given by the guardian, if there be one, or if there be no guardian, by the state board of control. In case of illegitimacy, the consent of the mother alone shall suffice. In all cases where the child is over fourteen years old his own consent must be had also.

Status of adopted child. Upon adoption, such child shall become the legal child of the persons adopting him, and they shall become his legal parents, with all the rights and duties between them of natural parents and legitimate child. . . .

Annulment. If within five years after his adoption a child develops feeble-mindedness, epilepsy, insanity, or venereal infection as a result of the conditions existing prior to the adoption, and of which the adopting parents had no knowledge or notice, a petition setting forth such facts shall be filed with the court which entered the decree of adoption, and if such facts are proved, the court may annul the adoption and commit the child to the guardianship of the state board of control. In every such proceeding it shall be the duty of the county attorney to represent the interests of the child.

The intent of the provision of annulment is obvious. Such a provision ought not, however, to be too freely invoked. The necessity of applying it should be anticipated by thoroughgoing physical and mental examinations of the child prior to adoption. Since the pre-school period is a peculiarly important one for the exercise of adoption, the value of accurate diagnostic estimates of development for this period is clear.

Annulment, in any event, remains a highly exceptional court procedure. Overwhelming testimony in favor of the fine human adventure of adoption can be gathered from the highest of all authorities on this subject — namely, thousands of adoptive parents.

CHAPTER IX

THE PRE-SCHOOL CHILD AND THE HOME

Significance of the home in pre-school hygiene. To say that the home is the most fundamental institution of society is to state a truism which has been so often repeated that it has lost all flavor and force; but truisms are likely to have a latent vitality. Bernard Shaw was, therefore, sure of an audience when he said that parents are the worst possible people for children to live with. When vague suggestions are made regarding the socialization of the maternal function, and the establishment of classified State nurseries for pre-school children, the truth of the truism begins to shed its triteness.

We cannot assess the value of any policy with regard to the welfare of the pre-school child until we have taken full account of its direct or eventual effect upon the home as a social institution. Indeed, we may be certain that with the pre-school age, child welfare and family welfare are inseparable and mutually interdependent. Although in exceptional and abnormal situations society must intervene and remove a child from its "home" to protect the child's rights, the goal of the best social effort is toward rehabilitation of the home, and the provision of foster family homes for children deprived of parental care. This is the goal be-

cause the welfare of society and the child alike hang upon the integrity of the home.

From the psychological standpoint the significance of the home is summarized in the following words of G. Stanley Hall: "All human activities, when reduced to their ultimate instinctive psychic elements, originated in and consist in impulses toward nest-building, home-making, or providing better conditions for posterity." Sociologists and historians provide us with equally sweeping conclusions regarding the fundamental importance of family life.

In spite of all these considerations, civilized society appears to be constantly confronted with unsolved problems concerning the place and functions of the home, and with enforcing elementary standards of monogamy and of parental responsibility.

Optimists count upon the home to counteract many of the evil tendencies of modern times; pessimists point out how these tendencies are successfully undermining the home. When practical programs concerning child hygiene and education are discussed, there are likely to be divergent views regarding the efficiency and duty of the home. The concentration of populations into cities, and the effect of modern inventions on hamlet and rural life, have alike increased the complexity of the problems.

Pestalozzi and home education. It is, therefore, very interesting and instructive to turn back to Pestalozzi, who is regarded as a leading educational reformer, and who spent most of his life among a

peasant people, in an agricultural age, before the industrial revolution had got fairly under way. There is some evidence that in his elderly years he was disquieted by the trend of the times and signs of decay in the good old domestic virtues, but his whole career was an effort to exalt and to reconstruct the home. He believed that social reform and educational reform could come through the home alone.

His very first educational treatise — and he was a voluminous writer and pamphleteer — contained these two aphorisms: "A man's domestic relations are the first and most important of his nature. . . . The home is the true basis of the education of humanity." One of his most important writings was entitled, *My First Book for the People, Leonard and Gertrude.* This was a kind of sociological novel in which Pestalozzi shrewdly set forth the virtues and methods of the ideal mother teacher, "who makes her house a temple of the living God, and wins heaven for her husband and her children." Everything which he afterwards wrote and did was to fulfill the vision of this book. Note some of the titles of his later productions: *Christopher and Elisa* (in which a father and mother discuss chapters from *Leonard and Gertrude*); *The Good Jacob, how he teaches his Son; How Gertrude teaches her Children* (an attempt to give mothers a guide so they might themselves teach their children); *The Natural Schoolmaster* (a practical guide for home instruction for the pre-school period); *A Book for Mothers* (a guide for mothers, enabling them to teach their children to

observe and talk); *An Address to the British Public* (soliciting them to aid by subscription Pestalozzi's plan of preparing teachers for the people, that mankind may in time receive the fundamentals of instruction from mothers, 1818); *The Simplest Methods whereby to Educate a Child at Home from the Cradle to its Sixth Year* (the title of Pestalozzi's very last speech, made when he was over eighty years of age).

Pestalozzi's writings are full of exhortations and shibboleths like the following:

> Forget, mothers, if it is necessary, all other work, all other attachment, in order to penetrate into the purity and sacredness of your maternal vocation.
>
> The mother is qualified by the Creator himself to become the principal agent in the development of her child.

Froebel and the nursery school. There are good reasons for believing that the kindergarten originated with Froebel as a movement for nursery reform. Although he never adhered as tenaciously as did Pestalozzi to the view that the home was the chief agency for early education, there is evidence that he approved the idea and wished to make the kindergarten consistent with it. He had a sort of education of parents in mind when he started the kindergarten. "The destiny of nations lies far more in the hands of women — the mothers — than in the possessors of power, or of those innovators who for the most part do not understand themselves. We must cultivate women who are the educators of the human race, else the new generation cannot accomplish its task." Baroness von Maren-

holz-Bülow, who became one of his leading exponents, claimed that this was almost always the sum of his discourse. The following from one of his letters supports the view that he wished the kindergarten to be a demonstration model for mothers to copy: "There is little hope for improvement until mothers will begin to educate themselves. Let them attend kindergarten and study the system themselves."

The following quotation is peculiarly suggestive from the standpoint of the recent nursery-school movement. It is taken from a *Prospectus of an Institution for the Training of Nurses and Educators of Children.*

> The institution intends to render generally accessible an education in agreement with the nature of the child and of man, and satisfying the demands of the age, and to show how such an education can be carried on in the family. This can only be done by preparing young ladies for the business of nursing, developing, and educating a child from its birth until it can go to school. The course will also qualify its pupil to prepare children for the first grade of the elementary course of the public school.

These "child nurses" and "child guides" were to go out as professional women, as Misawa points out, to "provide kindergarten training in the family" as mothers' helpers. "But since every family cannot afford this individually, it should be carried out as a problem of general coöperation, to be solved by and for all the people."

We have quoted these views of Froebel, not so much for their intrinsic worth, but as an answer to those of his followers who would confine the organization and

operation of the kindergarten to a narrow circle painted on the floor of a schoolroom. The problems of the hygiene and education of the pre-school child cannot be separated from those of home and parenthood. The kindergarten cannot realize its full objectives unless some form of parental training and coöperation is incorporated into its program.

Modern agencies for parental training. In this chapter we shift the discussion from the child to the mother — and the father. In last analysis, many of the issues of pre-school hygiene depend upon the good-will of parents, both toward their advisers and their children. Even administrative problems frequently resolve themselves into methods of increasing or utilizing that good-will.

The agencies directly engaged in some form of parental training and parental-guidance work are numerous. There is much diversity in their activities. State, Federal, local, and purely voluntary private agencies all contribute a share of educational work for parents, but there is nothing resembling a coördinated program. Most of the activities are quite independent; they are partial, piecemeal, and unrelated. There is much overlapping. Chaos would not be a just word to describe the work in this field, because most of the efforts are constructive in spirit and in accomplishment. Considerable portions of the field, however, are not covered at all. What we have in the present situation is an incomplete mosaic without much pattern. Nothing like a comprehensive policy of parental educa-

tion and guidance has taken shape, but the necessity and the promise of such a policy are gradually becoming evident.

Baby week. The most gigantic intensive campaign for parental education that was ever staged was the nation-wide baby week, which was promoted by the General Federation of Women's Clubs and the Children's Bureau, in 1916. This parental propaganda reached not only some two million women identified with women's clubs, but mothers and fathers throughout the country. Probably over three thousand celebrations took place in urban, village, and rural communities, and on Indian reservations. It cannot be said that this was a spasmodic affair, for it left permanent results, and gave a general impetus to baby-welfare publicity. Better-baby contests, which have always aroused considerable public attention, have been repeated in many places since.

Child-welfare exhibits. These have become an accepted means of popular education. As early as 1915, the Children's Bureau issued a bulletin describing concretely the organization and uses of such exhibits. It is significant that these exhibits are not always imposed by an external agency, but that the initiative often comes from the parents themselves. "The demand for an exhibit may arise in a community in many ways. A mothers' club or infant-welfare station may desire some new and graphic way of teaching mothers the methods of infant care; a settlement or club may wish to interest parents more vitally

in the development of the growing boy and girl." Traveling child-welfare specials have combined the features of both clinic and educational exhibit.

Literature. The printing press has been a very powerful ally of the baby. Tons of literature have been distributed through State and Federal bulletins, posters, cards; through illustrated articles in newspapers and magazines and special child-welfare periodicals. One State Department of Health consumed four thousand pounds of paper so that it might distribute 350,000 leaflets, on infant welfare, during a baby-week campaign. The moving picture has contributed many miles of visual education.

General publicity has sometimes been criticized because of superficiality and emotionality. It confessedly has its limitations, but it also has all the power of beneficent propaganda. It arrests the attention, directs the interests, and moulds the prejudice of large numbers of people, both parents and future parents.

Conferences and classes for parents. An important form of parental training has developed as a by-product of medical infant-welfare activity. This welfare work was at first altogether non-educational. The *allaitement maternel*, established in 1876, in Paris, was chiefly a canteen for nursing mothers. The early milk stations, both here and abroad, were simply dispensaries for doling out and "humanizing" cow's milk. But the *mutualité maternelle*, founded in 1892, provided for visitation and instruction in the home. The Ghent School for Mothers, founded in England, in

1901, conducted not only a milk depot, but provided training classes for foster mothers, girls' classes in child culture, and home instruction. The St. Pancras School (London, 1907) provides classes for expectant and nursing mothers, and a club for older girls; although it is called a motherhood school, it has also conducted an evening department for fathers and husbands.

Many local educational authorities in England have, out of an educational budget, provided teachers of classes conducted under the auspices of the English Association of Infant Consultations and Schools for Mothers. The grants of the Board of Education for England and Wales, in 1916, included $76,000 for day nurseries and schools for mothers. In this type of parental instruction England has been in advance of other countries.

Parental training has, in America, grown out of the highly personal relations of the baby-welfare conferences. After the baby is weighed, measured, and examined, it becomes necessary for physician, nurse, and parent to take counsel together. This creates an educational situation of a real kind, with no artificial pedagogical incentives. The possibilities of this situation have been only slightly exploited. The instruction is usually limited to the immediate practical problem in hand, and sometimes it is perfunctory in character. In addition to this individual instruction, infant-welfare stations frequently conduct classes or clubs for mothers. Goodwin reported such classes for two hundred and fifty stations in 1916. Similar

classes and clubs have been conducted by private and quasi-public nurseries and social settlements. The Murray Crane Day Nursery, of Chicago, has enlisted the participation of its mothers in such a way that the nursery has become a demonstration and training center in child care. Dealey, in 1917, reported that of four hundred social settlements in the U.S., twenty per cent had nursery establishments and forty per cent kindergartens. Only to a limited extent have these been used as means for parental education. Public kindergartens have barely recognized that such education is within their province.

Home visitation. A very vital kind of parental teaching is that which is carried out by professional home visitation. This visitation is now largely done by social workers, school nurses, visiting teachers, and district and public-health nurses. In the aggregate these home visitors accomplish each year a vast amount of educational work, though they do not ordinarily consider themselves as educational agents and are not so regarded. Much of their teaching is by direct prescription and demonstration. They rely chiefly on their personal contact and common sense, and have not in a professional way become fully conscious of an educational mission or technique. To a very meager extent has home visitation made deliberate application of the principles of educational psychology to increase the effectiveness of its results. We need a more systematic formulation of certain aspects of social work in terms of parental education.

Three kinds of nurses engage in home visitation. These are the public-health nurse, whose particular province is the prevention of disease; the district nurse, whose field is sickness and emergency care; and the school nurse, who is concerned with the treatment of disease and defect in the school child. These various functions are frequently combined in the same individual. There are great differences of opinion and practice in regard to the vexed question of specialized and combined nursing. In England the term "nurse" is being dropped in favor of "health visitor," to emphasize the hygienic and educational functions. At bottom these questions are administrative and by no means call for a uniform solution, but in any event the solution should take full account of the purely educational problem of parental training. This problem is not a vague abstraction; it can be readily analyzed into the formation of concrete habits of action and perception. Professor C. E. A. Winslow believes that the ideal organization for health nursing consists of generalized regional nurses, assisted by an advisory and supervisory staff specialized along functional lines. One of the functions which calls for specialized recognition is the educational one, so that more effective work will be done in the important sphere of parental training.

This does not mean that we should segregate the task of education from other activities. On the contrary, the favorable opportunity for effective instruction is the baby's bath, or the sick bed, or the emer-

gency as the case may be. This gives the work of education its natural, project setting. Much, however, remains to be done, through improved nurse training and supervision, to bring about the maximum utilization of these teaching moments.

The relation of the school nurse to the problem of parental training is a very interesting one. It is recognized that she has a specific group of school problems, but she can scarcely confine her interest to children of school age. She is bound to come into contact with the younger brothers and sisters, of pre-school age, who are not on her register, but who offer tempting opportunities for preventive work. Some cities — notably Pittsburgh — are developing the promising practice of drafting their school nurses into infant-welfare work during the summer period. Such procedure is bound to break down some of the artificial distinctions which now separate school and pre-school hygiene.

The visiting teacher. There is another agent who promises to do still more toward wearing down these distinctions. This is the visiting teacher. The visiting teacher began as an educational experiment, and the initiative came from outside of the school system. In 1906–07 three cities, New York, Boston, and Hartford, began the work which has now been taken up by twenty-nine cities in fifteen states, and in all but four cities is part of the public school organization. In 1919 the National Association of Visiting Teachers and Home and School Visitors was organized.

The visiting teacher has been well described as "the

arm of the school extended into the home to draw the school and the home together for the benefit of the child. It is her work to visit and establish friendly relations with the homes of those children who exhibit the first symptoms of falling below the school standard in scholarship and conduct." A report on the visiting teacher in the United States, issued in June, 1921, by the National Association of Visiting Teachers and Home and School Visitors, tabulates the specific reasons for referring children to visiting teachers, as shown in the accompanying table. It will be noted how completely the problems lie within the general field of mental hygiene, and how largely they include

REASONS FOR REFERRING CHILDREN TO VISITING TEACHERS

SPECIFIC REASONS FOR REFERRING CHILDREN	TOTAL NO. OF V.T.'S NAMING THIS REASON AS OCCURRING AMONG THEIR CASES	NUMBER OF V.T.'S NAMING THIS REASON AS OCCURRING FIRST, SECOND, THIRD, ETC. IN ORDER OF FREQUENCY AMONG THEIR CASES				
		1st	2d	3d	4th	5th
1. Maladjustments in scholarship:						
(a) Subnormality	50	11	6	26	7	..
(b) Retardation	49	11	31	5	2	..
(c) Deficiency in lessons	43	29	10	8	1	..
(d) Precocity	34	1	2	8	23	..
2 Adverse home conditions						
(a) Poverty	48	26	14	4	3	1
(b) Neglect	47	17	19	8	3	0
(c) Improper guardianship	39	7	8	16	5	3
(d) Immorality	32	0	5	8	6	13
(e) Cruelty	31	0	1	6	14	10
3. Misconduct:						
(a) In school	45	33	4	8	..	..
(b) Out of school	41	10	20	11	..	..
(c) Involving morals	38	6	16	16	..	..
4. Irregu'ar attendance:						
(a) Suspicious absence	42	17	13	12	..	..
(b) Due to home conditions	38	20	15	3	..	..
(c) Half-days absence	37	9	13	15	..	..

Lateness and physical condition were also given among other general reasons for referring cases.

work with parents through teaching and interpretation. It is also clear that it is altogether illogical to confine the field of the visiting teacher to children of school age.

Adult education for parents. There has been a most significant movement for adult education within the past few years. The World War has intensified a thirst for knowledge which is innate in grown men and women and not peculiar to childhood and youth. Adults are plastic, inquisitive, and under favorable educational stimulus they are even eager for learning. Remarkable stories have recently come from England of groups of working-men pursuing studies of university grade in economics and history, without even the motive of a certificate or a degree. The ardor with which these labor-union groups are seeking truth might bewilder many a college youth.

Although these special study groups undoubtedly are composed of picked men, there is ample evidence that a corresponding educability is very widely diffused, and that Aristotle was very nearly right when he said, "All men desire knowledge."

The whole field of parental education and guidance is uniquely fertile for educational exploitation, because within all normal parents there are psychic impulsions which pertain to home life. These impulsions are so basic that they determine an all but universal desire for knowledge which bears on the health and development of children. Only a cynic would say that there is no such common desire. It is there, and we must find our way to it.

CHAPTER X

PRE-PARENTAL EDUCATION

It was about two generations ago, that Herbert Spencer contributed to the *Westminster Review* a notable article entitled "What Knowledge is of Most Worth?" It contains the following passage: "If by some strange chance not a vestige of us descended to the remote future save a pile of our school-books or some college examination papers, we may imagine how puzzled an antiquary of the period would be on finding in them no indication that the learners were ever likely to be parents." Lest this suggestion convey levity, the young philosopher began the next paragraph in a more solemn vein: "Seriously, is it not an astonishing fact that, though in the treatment of offspring depend their lives and deaths, and their moral welfare or ruin, yet not one word of instruction on the treatment of offspring is ever given to those who will hereafter be parents?"

Only a few years ago, in a large Eastern city, objections were raised against introducing a live baby into an educational exhibit, to be used to illustrate methods of infant-welfare work and baby care. The objections carried the day and a doll was used instead. Although this was historically a very minor incident, it reflected the quasi-squeamish attitude which has

long colored our conservatism in the vital field of parental education.

Present educational provisions. A survey of the present-day educational provisions directly designed for training in the tasks and responsibilities of parenthood reveals a situation which might be described as a desert with many oases. There are several "mothercraft schools." "Caroline Rest" in New York City annually reaches thousands of mothers in their period of convalescence and trains them through practical demonstration and guidance. This is the largest institution of the kind. There are extension and Chautauqua courses and even correspondence courses; and there are Y.W.C.A. classes, continuation classes, and specialized departments in home economics in an increasing number of vocational schools. Domestic science and so-called household arts have become almost a staple item in public instruction, but a frank analysis of the content and method of the work shows that these courses are pitifully inadequate. Sometimes they appear to be a means for evading the real issues involved. The courses themselves may be conducted with efficiency and excellent spirit, but without meeting the real requirements of an educational preparation for parenthood.

Colleges and home training. In a delightfully ironical article in the January, 1922, number of the *Journal of the American Association of University Women*, Mrs. Eva Vom Baur Hansl exposes the paucity of college provisions for training for parenthood. She

notes that relatively few colleges or universities offer even courses in child psychology, and that these courses either ignore or slight the pre-school period of development, which, from the parental viewpoint, is of preponderant importance. Courses in child hygiene and home nursing are equally rare. There are scattering courses announced in the catalogues, as "markets and marketing," "economics of the family," "dietetics," "child-welfare problems"; but nothing comparable to a well-rounded "department of the home," with definite courses in child care and family welfare. The author refers with approval to the semi-centennial address at Vassar College, in which Miss Julia Lathrop "expressed the wish that colleges would do their share in making for a more intelligent motherhood, and even dared to hope that some day they would establish graduate departments of research in the affairs of the home."

Through extension divisions, occasionally through correspondence courses, State universities have given a certain amount of parental instruction and have reached large numbers of patrons. Some vocational schools and normal schools have entered the field more systematically. It is estimated that the American School of Home Economics has reached twenty thousand persons through correspondence courses. The State University of Iowa has founded a Child-Welfare Research Station which will undoubtedly exert a practical influence in this field of education. Recently the Michigan Agricultural College has made an

arrangement whereby seniors will have theoretical courses in child psychology, child hygiene, nutrition, and household management. Laboratory experience in some of these courses will be provided through an experimental nursery school which has just been established in Detroit, as part of the Merrill Palmer Motherhood and Home Training School.

Progressive libraries sometimes have organized information service for parent and household problems. The Federation for Child Study has published a bibliography of books for parents. A few publishers have issued manuals on child nurture and home education. Various organizations have formed study and reading circles. The Duluth public schools have created a department of home teaching for foreign women. It is really part of the Americanization work; but the reading material is related to problems of housekeeping, child training, and home-making. The early lessons, following the principle of suggestion, contain such interesting sentences as, "I keep the house clean." "A clean store has no flies and little dirt in it." "Cooked prunes are good for children."

The public schools. Passing now to the public school system, we find that perhaps the most effective educational enterprise in this field is one which originated, in 1908, in the Department of Child Hygiene of New York as a kind of extra-curriculum activity, and has since been imitated by many cities. In 1915 there were Little Mothers' Leagues in forty-four cities, enrolling 48,475 girls, who were instructed by lectures

and demonstrations during and after school hours, both in vacation and school time. The League reaches girls from the fifth to the eighth grades, and includes badges, prizes, plays, and pageants in its devices. Most important of all is the healthy motivation which it builds up through first-hand introduction to the actual work of infant care. Similar in conception and method is the work in the "Fire Makers" order of the Camp Fire Girls. Promotion to this order can be gained only by passing certain tests, informational and otherwise, relating to infant welfare — a dim reminder of the adolescent initiation rites found among primitive peoples. Although the Little Mothers' Leagues and Camp Fire Girls are not officially recognized agencies of public education, they have important suggestions to offer to these agencies as to methods of motivation and appeal.

Vocational home-making education. The whole question of training for parenthood as a task of public education is rising into clearer prominence for two reasons: (1) The pressing importance of an improved control of the hygiene of the pre-school period. (2) The passage of the Smith-Hughes Act providing grants of Federal aid for vocational training in home economics. This act applies to other forms of vocational education as well; indeed, home economics was not included until the eleventh hour. The Federal Board for Vocational Education has experienced some administrative difficulties in fitting the ordinary principles of vocational training to the field of home

economics. The policy of the Board is summed up in Bulletins 28 and 37. In the latter bulletin the term "home-making" is substituted for the more specific term, "home economics." Home-making is described as a composite vocation and as a social and business enterprise. As a vocation it is analyzed into the following distinct lines of activity:

a. The care and rearing of children.
b. The care of the house and its equipment.
c. The selection, preparation, and serving of food.
d. The selection and care of clothing, and to some extent its actual construction.
e. The care of the health of the family.

In terms of this analysis, home-making proves to be numerically, at least, the most important of all occupations, far outnumbering the next most numerous occupational group of farming.

There are easily twenty million homes in the country, with an even larger number of house mothers, house daughters, and aunts who are potential candidates for training in home-making. In view of this situation, the public schools of the country have, by their few, slender courses in home economics, only touched the hem of the garment. There are, in round numbers, over twelve thousand public high schools in the country, with only one fourth offering courses in home economics, attended by one out of six of the entire enrollment of high-school girls. These courses have been conventionally limited to cooking and sewing. The Children's Bureau of the United States Department of Labor has just prepared, in coöpera-

tion with the Federal Board for Vocational Education, a five-hundred-page guidebook of outlines for study of child care and child welfare. This is to be used in the training for vocational teachers of home economics, and will help to broaden our current "domestic science."

The work done as yet very meager. Moreover, there are vast contingents of prospective home-makers who are not reached by the existing courses in home economics, and by the relatively meager provisions of grammar-grade and night-school instruction. About two fifths of all girls, from sixteen to twenty years of age, are engaged in gainful occupations; there are also, as Bulletin 37 points out, large numbers of girls beyond compulsory school age who have dropped out of school and are relatively idle or engaged in non-gainful (household) occupations. There are also large numbers of girls and women above school age, and there are large numbers of girls in rural and sparsely settled communities, who have not been reached. The Federal Board for Vocational Education suggests that the needs of these various groups be met by short unit courses, by part-time schools or classes, and by all day schools. The Board would also insist that the prevailing home-economics courses, which are now part of general education, be definitely placed on a vocational basis. From an administrative point of view they must be put on that basis to entitle them to any of the $600,000 which will be available for their support, in 1925, by the Smith-Hughes Act. Incidentally, it may

be noted that this sum is only one tenth of that which will be available to States for training in agriculture and trades and industry in the same year, under the same act.

In his recent book on *Vocational Education* Professor Snedden subjects the current situation in home-making education to a critical analysis. He almost exhausts the letters of the alphabet to list the various types of homes which must be considered; he classifies ten different kinds of skills which must be evaluated to ascertain what powers and capacities are now prevailingly found among home-makers; he indicates how the objectives of home-making education must be classified by case studies of typical situations. He believes that from an administrative viewpoint it is necessary to distinguish between extension teaching, technical instruction, and basic vocational education. Finally, he comes to the conclusion that it is very important that schools of general education for girls from twelve to sixteen years of age "should offer courses of household arts, conceived very much as are now home gardening, scouting, and the best manual training, as a means of genuine liberal education." "The courses should not be obligatory, but elective; they should not have the serious singleness of purpose of vocational education, but should be diffusive, catholic, and cultural in spirit."

The possibilities of pre-parental education. It is evident, from the above survey of current practices and tendencies, that the problem of training for parent-

hood is far from solved. The immediate administrative problems are being met, and there will doubtless be a rapid increase of educational provisions in home economics, but whether we have faced and grappled with some of the deeper issues of the question may well be doubted. The basic problem of rearing children — that is, the vital part of the problem of parenthood — still holds a minor place in our discussion and our schemes.

And even when it is theoretically considered, boys and fathers have been left almost completely out of the reckoning. I do not recall that either the term "boy," "young man," or "father" is used in the two Federal bulletins on home-making, and most educators present the subject purely from the feminine angle. Whatever justification there may be for this, the situation is anomalous. Even after home-making has been analyzed into five different activities, and after all of these have been generously placed on the house daughters and house wives, we are still confronted with the biological and sociological axiom that home-making is a joint enterprise in which the father must share. In our arrangements of education, and in our prospectuses concerning these arrangements, we cannot afford to imply that the father is the economic bread-winner of this social unit, and that he needs no training or sense of responsibility in the composite activities of home-making. It ought to be one of the major objectives of our popular home-making education, here in America, to blot out that disastrous implication, and to give

"the head of the household" a little glimpse of his domestic future. Indeed, we ought to count home-making one of his career motives, and we ought to tap it.

The second fundamental defect in our present educational conception of the problem is that home-making is being formulated too much in terms of vocational skills, and too little in terms of motivations and ideals. Although little is gained and much is lost by making a sharp distinction between vocational and liberal or cultural education, it is essential that the psychological factors of desire and attitude be made of primary importance in our educational procedure. If home-making is a vocation, it is unique; and it is unique, for it is in a sense universal. Children share in it as well as cooks and seamstresses, and so do fathers. Technical skill in cooking, sewing, washing, teaching are invaluable, but neither educationally nor actually does skill count for as much here as it does in stenography. Home-making and parenthood are more akin to ethics and citizenship than they are to any specific vocation. This is not to say that they should not be defined into their specific motor activities, whenever these can be determined for purposes of training, but these motor habits do not comprise the whole job analysis. We must rank first in our inventory the less tangible but very real factors which have to do with the deepest instinctive attributes of life, and with nothing less than a philosophy of life.

How can we aid the development of such a philoso-

phy unless we go beyond the ordinary standards of purely vocational pedagogy? By philosophy of life we do not mean some unattainable system of metaphysics, but the groups of ideas and attitudes, inarticulate and articulate, which concern the home in one way or another and condition one's whole outlook upon the world.

Any one who has seen an average young woman, from a simple walk of life, bring her first baby to an infant-welfare conference and caught some of the inner radiance which she betrays in the experience, knows that parental education deals with some of the most profound impulses of life. Even before the event of actual parenthood, these impulses in a submerged form make their presence and their power felt. They exist even in rather colorless youths, and they constitute the most sacred and potent interest with which education has to deal, either directly or indirectly. The key to the baffling problems of adolescence lies in the enlightened capitalization of these instincts and complexes which are set toward parenthood.

It has long been clear that the problem of sex education cannot be solved by any *tour de force*, and that didactic instruction to remove ignorance will in itself be of little avail. Nor will prudishness be of much avail. The problem is so fundamental that it must be solved in other ways.

We have fallen into a kind of evasion and prudishness with regard to the problem of training for parenthood. We have not bothered the boys about it at all.

Even with girls we have avoided some of the basic realities of embryology, birth, infancy, development, and child nurture. Active, frank relations with the problems of child care have not marked our efforts. We have neglected to build up in our rising youth the healthiest and most spiritual of all sex complexes; namely, those which are concerned with the rearing of children and the significance of family life. Surely we can develop a type of home-making education which will bring the realities and significance of childhood into the vision of youths who in a few years will be fathers and mothers. Unless we really bring such a vision, this education is virtually a failure, and if we succeed in developing a sincere, sound type of preparental education, we shall find that by a benevolent process of substitution we have also, in large measure, solved the so-called problem of sex education. The only anchor for a really wayward youth is his own home, or a prospective home which he or she will help to create.

Where the kindergarten may serve. In conclusion, what do we mean by a sincere type of parental education? We mean one that will actually concern itself with actual children; not only by means of "home projects" and doll demonstrations, but by active participation in the care of children, particularly those of younger age. The whole wide-flung pre-school period is open for exploitation as a training ground, and our adolescent youths can be employed as junior assistants in such a manner that their apprenticeship

services will be a civic contribution. It would not require superhumanly ingenious engineering or management to assign these youths, for periods of observation and help, to infant-welfare stations, pediatric clinics, to rounds with visiting nurses, to settlements, nurseries, children's homes, and kindergartens.

The monitorial system of education once had great vogue. It fell quite properly into disuse because it was misused. Nevertheless, there is a kind of natural sympathy between youths in their teens and young children which could be made to thrive for the benefit of both ages concerned. The uninhabited model apartment, which has been used with some success in teaching the household arts, is hopelessly inadequate when it comes to teaching child hygiene and strengthening the growing fibers of parenthood. We must strike for something broad-gauged and real, and the whole span of years and agencies from the milk station to the primary grades lie at our disposal.

Here, as elsewhere, the kindergarten, because of its strategic location in the scheme of things, is in a position to make an invaluable contribution toward solving the stupendous problem of popular pre-parental education. Incidentally, the welfare of the pre-school child of both this and the next generation is partly at stake.

CHAPTER XI

THE SOCIAL CONTROL OF PRE-SCHOOL HYGIENE

The movement toward systematic social control. It is evident from many signs of the times, both here and abroad, that the developmental hygiene of the pre-school age will gradually be brought under systematic social control. It is clearer than it has ever been before that the first months and years of infancy cannot be entrusted completely to the unaided instincts of parental protection. The State must provide general laws, specific regulations, and special social devices for safeguarding the precarious "rights" of early infancy; it has done much to secure similar rights for children of school age, and repeated judicial decisions have strengthened this protective social control.

The practical exercise of social control will involve certain administrative difficulties arising out of the fact that there is no convenient clearing house for children of pre-school age comparable to the public school. Pre-school children are scattered among numerous homes, and rarely congregate. The hygiene of the pre-school child in rural districts presents peculiar difficulties. Whether in country or city, there is the basic problem of securing adequate home coöperation. There are also numerous problems of coördination between private physician practice and public health supervision, and between medical and educa-

tional forms of control. The latter question may be discussed first, because of the important and interesting issues which it involves.

Medical and educational control

The concrete problems of pre-school hygiene may be purely medical in character, or educational, or both simultaneously. It is this very community of interest which may bring about administrative conflict.

The overlapping interest of both health and educational authorities in the pre-school period has come into definite expression in England. We have noted that nurseries are put under the Ministry of Health and nursery schools, under that of Education. In the administration of maternal and infant welfare we have the following situation described by Brend:

> If the mother wishes for advice or help in the care of her baby, she may go to a "school for mothers" which is under the Education authorities, or to an "infant-welfare center" under the control of the local authority and assisted by grants from the Local Government Board, and either of these institutions may send a health visitor to advise her as soon as the infant is born.

The result is that the Board of Education and the Local Government Board are doing essentially the same work in the field of infant welfare, as shown by the similarity of their annual reports on this subject. The chief difference between the two agencies is that one is primarily educational and the other provides surgical and medical treatment; but, as Mrs. Acland has said, "When Mrs. Smith's baby begins to put on

weight, who shall say whether we rejoice primarily because that means an improvement in Mrs. Smith's education or in baby's health?"

The above was written before the passage of the recent Ministry of Health Act which relieves the Board of Education of responsibility (1) for the medical inspection and treatment of school children and young persons, and (2) for the care of the health of expectant and nursing mothers and of children under five.

Sir Arthur Newsholme, although recognizing the excellent medical work accomplished under the direction of local education authorities, where it was first placed, and recognizing that the work in its initial stage developed more rapidly because of this connection, has the following to say regarding the administrative issue:

> The separation of the medical work of educational authorities from public-health medical work was contrary to the first principles of sound administration.

Whether this observation applies with equal force to American conditions is not altogether clear. The tremendous development of the public school system in America, and a corresponding increase in the prestige of boards of education, accentuated by a retardation in the development of boards of health, has tended to diminish the power of the latter in relation to the health supervision of school children. For the period of infancy, however, where the problems are so decisively medical and sanitary, boards of health have

maintained their authority. Logically enough, this responsibility extends through the whole pre-school period, and this health service should be made continuous with that of the schools. On this point Dr. Josephine Baker writes:

> Health authorities generally view the problem of child health as part of any coördinated program for the conservation of the health of all persons in the community. . . . To assume that a health board can care for the health of the population under six years of age, and then neglect such health measures until the age of fifteen, implies a neglect of opportunity which should be condemned.

Functions of a bureau of child hygiene. Dr. Baker was the first director of the first department of child hygiene to be established, that of New York City, in 1908. Similar departments or bureaus have become an almost standard feature of both municipal and State health organization. Less than a half dozen States in the Union are now without such a subdivision. Dr. Baker defines the functions of a well-organized bureau of child hygiene as follows:

1. Regulation and standardization of obstetrical procedure by:
   a. Education, licensing and control of midwives.
   b. Supervision of standards of lying-in hospitals.
   c. Provision of maternity nursing.
2. Prenatal work, including:
   a. Establishment of prenatal or maternity centers.
   b. Supervision and instruction of expectant mothers.
   c. Essential legislation for protection of women of child-bearing age or pregnant women in industry.
3. Reduction of infant mortality by:
   a. Measures outlined under (1) and (2).

b. Instruction of all mothers of children under one year of age, with necessary health supervision of such infants.
c. Readjustments of social, economic, and environmental conditions.
d. Education of young girls in personal hygiene and in the care of infants.

4. Health supervision of children of pre-school age by:
   a. Maintenance and supervision of day nurseries.
   b. Supervision and control of institutions caring for dependent and delinquent children.
   c. Health examinations and follow-up of children of pre-school age.
5. School medical inspection by:
   a. Health supervision of all children of school age.
   b. Establishment and maintenance of standards for school hygiene.
   c. Establishment or supervision of adequate facilities for the treatment of defects or illnesses of children.
6. Child Labor.
   a. Establishment of legal standards controlling the employment of children.
   b. Supervision of children under 16 years of age engaged in industry.
   c. Establishment of health standards essential for the issuance of employment certificates.

The above is logically a reasonable outline of the proper functions of a bureau of child hygiene, and it represents a field of activities which has been successfully administered by the largest bureau of child hygiene in America. There has been much local difference of policy and procedure in this country with regard to the group of functions listed under item 5. This diversity in practice has developed in spite of the fact that in the United States, out of thirty-four States which have laws requiring or permitting the

employment of medical inspectors, twenty-nine have put the work under the State Board of Health, and four under the State Board of Education.

Educational versus Medical Control. Cubberley, in his volume on *Public School Administration* says (p. 348):

> Medical inspection everywhere began as an extension of the work of boards of health, but in something over three fourths of the cities of the United States now supporting health work in the schools, the service has since been placed under the control of the board of education. This must now be regarded as its proper place, because the work is essentially an educational service.

On the same question he quotes the following from the *Portland School Survey Report* (p. 349):

> While it is possible for the work to be efficiently carried on by a board of health, it is extremely unlikely that it will be. The board of health lacks the educational point of view, usually makes the work curative rather than preventative, neglects the so-called "minor" forms of defectiveness, makes the school service a side issue of the public health work, and fails to secure the maximum coöperation from teachers and parents.

Terman and Hoag add another reason why the health service should not be administered by non-educational machinery; namely, that it would result in a "bifurcated educational aim, which has wrought such havoc in education for hundreds of years, and which becomes through this system of divided responsibility more strongly intrenched than ever. The school looks after the child's mind, the board of health after its body."

Rapeer, likewise, says:

Efficiency cannot come through administering any part of the school's work for children by some outside agency.

W. H. Maxwell, Superintendent of the New York City Schools, in 1909 summed up his argument in favor of putting the work of school physicians under the direction of school authorities as follows:

In the first place, we should wrong ourselves if we did not raise our voices against another city department drawing jurisdiction over work that is purely educational in character.

In the second place, dual authority and responsibility in a school — that of the school authorities and that of the health authorities — always have resulted, and always will result, in confusion and inefficiency.

In the third place, the accomplishment of the results desired requires experts; and experts in school work are not developed by health authorities.

Some of the above strictures with respect to the limitations of medical control are less justified to-day than when they were written. Medical literature shows an increasing volume of emphasis on the educational aspects of health supervision on mental hygiene and the psychological factors in medical treatment. Moreover, there are innumerable instances in which educational methods have been deliberately put into practice in dispensary, hospital, clinic, health center, medical social work, nursing, etc. It can no longer be said that the members of the medical profession are dull to the educational implications of their work.

A similar transformation has been manifesting itself in the field of public health; this term once suggested

sewers and typhoid, but now its connotation is broadening with every year. As Newsholme says:

> It embraces physiological as well as pathological life, being as much concerned with improving the standard of health of each person as with the prevention and cure of disease.

This statement may be found in Newsholme's volume of *American Addresses on Public Health and Insurance*, dedicated "To the Right Honorable John Burns, a leader in public health; who in particular made the public realize the importance of concentrating on the Mother and her Child."

The maternity and pre-school phases of health work are from the standpoint of preventive medicine assuming paramount importance, and medical-inspection service in schools is dropping to a more secondary position. With the development of pre-school hygiene, however, the educational and psychological phases of this health work with children of pre-school age will become increasingly evident. In the future, as in the past, conjoint and coöperative methods of attack must be evolved by both medical and educational agencies. The National Child Health Council, in its recommendations relating to child health in Erie County, New York, proposes this principle as the basis for coördination:

> The jurisdiction of neither the school authorities nor of the health authorities of the county should be relinquished, but both should be administered through one administrative head, whether on the pay-roll of the schools or of the nearest health administration unit.

The rural pre-school child

There are two sufficient reasons why the rural pre-school child must be included in the public health program:

1. The majority of all children of pre-school age live in rural communities. 2. The health of rural children is neither "naturally" nor actually superior to that of urban children.

Indeed, the rural mother and child may often, because of limitations of environment and outlook, have a peculiar claim on socialized health service. One of the most inspiring features of the recent public-health movement is the organization of such service, through statutes and through public and voluntary agencies. The country doctor, whose training and traditions have emphasized the purely curative side of medicine, is beginning to coöperate in a preventive program which will in the long run give him a greater opportunity for remedial work of a higher order. Local communities in increasing numbers are coming to the point where they themselves take initiative and responsibility in the organization of health service. Outside stimulus and guidance are important, but the service which is developed out of local interest is likely to be the most satisfactory and the most permanent.

A rural community, by the classification of the United States Bureau of the Census, is any place or district having a population of less than 2500. Cities

seem to dominate our civilization, but fully sixty per cent of the children of the Nation live in rural communities. The number of rural children of pre-school age was, in 1920, about 7,000,000. Interesting methods have been used to reach these children. Federal and State Governments have motorized medical, nursing, and educational service, and demonstrated the feasibility of bringing such service to very remote districts. The Wisconsin Board of Health, through an appropriation of the last legislature, has fitted out a "Child Welfare Special," modeled after the one used by the Federal Children's Bureau — a large motor truck equipped as a clinic and in charge of a woman physician and a nurse. The policy of the Wisconsin Bureau of Child Welfare and Public Health Nursing, however, is to encourage the establishment of permanent health centers in village and country districts, and to place both initiative and responsibility upon the local community.

Organization of rural health work. The character of the organization of rural health work will naturally vary with the locality. The Red Cross Country Nursing Service, in 1920, demonstrated the possibility of conducting clinics in the schoolhouses of a large county (Kalamazoo County, Michigan) and of utilizing the coöperation of both local physicians and experts and specialists from the county seat. School was dismissed for the day in the community where the clinic was held; the teacher and other volunteers assisted; clinic day was made a community event and

something of a holiday. In the evening stereopticon slides on general health subjects were shown, the lantern being connected by extension cords to the nurses' automobile when local electricity was not available. "The hopeful beginnings in team thinking and community participation in health programs" which resulted from the rural clinics point to the desirability of permanent service of a similar kind.

In more sparsely settled communities, it may for some time prove impracticable to establish clinical service for the diagnosis and treatment of ambulatory patients; but in such communities the educational type of health station, with nursing service, can be developed. Under the auspices of a well-trained public-health nurse, working in coöperation with the local teachers and physicians, such a health center may accomplish much in the field of child hygiene.

Mrs. M. P. Morgan, director of the Bureau of Child Welfare and Public Health Nursing in Wisconsin, says, "There is no doubt that infant clinics can be conducted successfully by public-health nurses." Miss LaForge, of the Children's Bureau, however, is of the opinion that "the rural mind more readily comprehends a family health service," which would also include actual bedside nursing and care of the sick. There are psychological as well as practical administrative reasons why a generalized kind of family welfare health work is likely to be more successful under rural conditions. There is no reason, however, why the educational type of work should suffer from such

an arrangement. The personal relations which grow out of maternity and bedside care furnish a favorable opportunity for effective teaching in disease prevention, child hygiene, and infant care.

The administrative problems of rural health service are difficult, but not insoluble. Local interest and the ingenuity of leaders will find a way.

The social unit plan of community organization

The larger administrative problems relating to the social control of infant and family welfare do not limit themselves to considerations of economy and efficiency, but involve fundamental issues of political science and perhaps of democracy itself. It is for this reason that the unique social unit experiment, conducted in Cincinnati for the three years ending July, 1920, is peculiarly instructive. The results of the experiment have been recently reviewed in a critical manner by Courtenay Dinwiddie, and the history and principles underlying the project have been set forth by Mr. and Mrs. W. C. Phillips, who were the executives of the National Social Unit Organization, and closely identified with its inception.

The Cincinnati experiment, in Dinwiddie's estimate, was "founded upon perhaps the most philosophical conception of human relations in community service that has been offered for thorough test in this country." He believes, also, that, in spite of the setbacks and the political attack to which the undertaking was subjected, the citizens of the district, and those serving

them, made "a real and outstanding contribution to human progress."

The general merits of the social unit idea have received the endorsement of many prominent persons and organizations, including Professor John Dewey, Dr. L. Emmet Holt, Mr. J. P. Foey, editor of the *Iron Molder's Journal*, Mrs. J. Borden Harriman, John Spargo, Rabbi Simon, the Federation of Churches of Cincinnati and Vicinity, and the American Federation of Catholic Societies.

The Milwaukee experiment. From the standpoint of pre-school hygiene the history of the unit plan is particularly significant. The plan was the outgrowth of a health center experiment carried on in Milwaukee, in 1911–12, under the auspices of a municipal child-welfare commission. Here, as later in Cincinnati, preventive health work was the point of attack, and a sincere effort was made to put the program on a democratic, community, self-help basis. The coöperation of the parish priest was secured; block workers were appointed for each of thirty-three blocks to gather facts, to interpret, and to advertise the contemplated infant-welfare and health work; citizens' committees were chosen; and a coöperating group of physicians was organized to develop a preventive program. The Milwaukee enterprise came to an untimely end because of a change in city administration, but it furnished a practical basis for developing the principles of organization and procedure which were put to such notable demonstration in the Mohawk–Brighton District

of Cincinnati. Fundamental among the principles "was the democracy of the plan — the idea of working from the bottom up as well as from the top down — of trying out a new method through which people can study their own needs, make their own surveys, call in experts of their own choosing, and pass upon plans suggested by such experts."

The Cincinnati experiment. Cincinnati was chosen for the social unit experiment because of its demonstration of interest in the project, and because of other civic, geographical, and populational advantages. The Mohawk–Brighton District, in that city, comprising thirty-one blocks with about one hundred families to each block, and numbering in all about 19,000 people, was organized, in the summer of 1917, by a district committee of over two hundred residents. The national social unit organization raised a sum of $90,000, and Cincinnati underwrote an additional sum of $45,000, making a total of $135,000 for the three years planned. The work of organization involved coöperation between the city authorities, the district representatives, and the fostering national society. In spite of an unfortunate public controversy over the social unit, the demonstration was carried through a period of three years, yielded constructive results, and won the almost unanimous, sympathetic endorsement of the citizens immediately concerned.

Organization of the social unit. The administrative organization which was adopted may be briefly sketched as follows (for details, see Dinwiddie's re-

port): The residents of each of the thirty-one blocks in the district elected a *block council* of seven members. Each council elected a *block worker*, with executive and social worker duties. These block workers together formed the *citizens' council* for the whole district. This council had its own executive. Similarly each group, having some professional skill or expert service to render, organized on a district basis and elected an executive representative. These representatives together constituted the local *occupational council* of the district, and functioned as the planning body for the various specialists comprising the seven occupational groups — the physicians, dentists, nurses, social workers, clergymen, teachers, and recreation leaders. The occupational council and citizens' council acting in combination constituted a *general council*, which elected a general executive for the entire district organization, and jointly or concurrently administered the affairs of the neighborhood.

Dinwiddie summarizes the novel features of this type of community organization as follows:

1. The clear-cut and intimate basis upon which small population units of the district were represented by the elective members of the citizens' council, known as block workers.
2. The mingling of policy-making and executive functions in the membership of the citizens' council, which was part of the theory of the plan of operation.
3. The plan of occupational representation of the district, by groups formed on the basis of service rendered to the community.
4. The definite coördination of the representatives of the citizens' and occupational groups in the general council, the policy-making body of the community organization.

It is in respect to the fourth feature just mentioned that the social unit made a unique contribution to the public-health movement. It has been asserted that control of health service by experts leads inevitably to paternalistic procedure and an autocratic type of government. The Cincinnati unit organization demonstrated the possibility of establishing organic working relationships between the agents of community service and the recipients of that service. It was, of course, to the advantage of the experiment that the activities of the unit were confined so largely to the relatively non-controversial field of health work; but it is encouraging that in this field it achieved real success — a success that was reflected in a marked increase of both civic and human neighborliness, and in a deeper, broader concern for the welfare of the pre-school child.

Achievements in pre-school hygiene. It was no small achievement which enabled the chairman of the general council to say:

> No community in the United States has done as much for the babies, so far as we know, as our Mohawk–Brighton Social Unit has. The number of babies under supervision in the district have increased twelve hundred per cent, and eighty-six per cent of all mothers with children under six years of age have brought them to the local health stations in charge of the Mohawk–Brighton physicians and had them thoroughly examined.

The following statistics summarize some of the significant results which were attained in the pre-school service. In December, 1917, only twenty-three in-

fants were recorded in the baby health service. By the middle of next year eighty per cent of all babies under two years of age were examined medically. During the first nine months of 1919, ninety-two per cent of the babies born in the district during that period received nursing care. The pre-natal service also showed a marked increase. By April, 1918, the block workers had registered 1173 children under six years of age. During the remainder of the year, 1075 of these were examined; 640 serious defects were found in children between two and six years of age; 446 children had defects so serious that they were placed under the supervision of nurses. These figures are undoubtedly fairly representative of the physical status of unselected pre-school children, and lead to the broad but significant conclusion that a majority of such children, the country over, are physically defective in the sense that they require definite medical and nursing supervision.

Scope of the pre-school hygiene problem. The development of parental training, home teaching, and pre-parental education is unquestionably part of the administrative problem of pre-school hygiene. Did the social unit experiment shed any fresh light on the solution of this important question? Unfortunately, no. The question came up for frank discussion when it was proposed to develop an educational extension service in home economics. It was decided not to have a home economics teacher as such, but a coördinator of all educational work in the home, including that of

the visiting housekeeper, the social workers, and the hygiene instruction of the district nurses. The decision, however, was never carried out, and no vital connections were established with the administration of the public schools. In his conclusions on Education and the Teachers' Council, Dinwiddie was obliged to say:

> The relationship of the educational work of the neighborhood organization to academic instruction in the public schools and the coöperation between the organization and the teachers of the schools was almost negligible, due to the gap between the immediate fields of operation of the two, and the failure of either to make a thoroughgoing effort to bridge this gap.

The significance of the kindergarten in the situation was not altogether missed. A report of the nursing service, for 1918, of the Mohawk–Brighton Social Unit Organization, contains this interesting reference to the kindergarten:

> Classes for mothers in child care were organized and held in the schools. The kindergarteners assisted by caring for the children while the mothers were in class, and helping with the social hour which followed. This gave the kindergarten teacher an opportunity to become acquainted with her little pupils while they were still babies.

It would be impossible to continue an arrangement of this kind very long without making the kindergarten a working part of both the maternity and infant-welfare work.

If the social unit plan is put to further test and elaboration, we may hope that it will furnish some specifications for the construction of a bridge between

the pre-school and the school domain. It is most important that organic functional connections should, in the future, be laid down, uniting the public school system with the field of pre-school hygiene. This coördination can be accomplished in many ways. The most fundamental, and therefore the most promising approach is through the creation of a new, concrete type of parental and pre-parental education, which will inevitably bring adults, youths, and pre-school children into vital contacts. It is for this reason that in the development of a new policy in home-making education lies the solution of some of the deeper administrative problems in the social control of pre-school hygiene.

CHAPTER XII

THE ORGANIZATION OF PRE-SCHOOL HYGIENE

Many problems underlying the administration and organization of pre-school hygiene have been touched upon in previous chapters. It is our purpose here to bring the situation into summary review, and to suggest what appear to us to be the more important lines for future development.

The whole field of pre-school hygiene is in such a state of formativeness that it would be hazardous to be either too dogmatic or prophetic. The discussion will consider in order: (1) medical and health service; (2) kindergarten and nursery establishments; (3) the family.

1. Medical and health service

Objectives. The objectives of pre-school hygiene are double — the prevention of disease and handicap, and the timely treatment of disease and handicap. In a commendable zeal to stress the first objective, we have sometimes failed to respect its organic relations with the second. Health and disease are relative and contiguous concepts. For this reason the organization of all forms of health service should be basically medical. It can scarcely be otherwise in the early months and years of development. It is equally important at later stages whenever promptness and accuracy of

diagnosis are fundamental to our procedure. In many critical instances a modern hospital organization and equipment are necessary to secure accuracy of diagnosis as well as of treatment.

Maternity care. Leaving eugenics out of account, the policy of prevention in child hygiene begins with maternity care. Almost more important than universal birth registration would be a timely reporting and supervision of all pregnancies. To make up for the inadequacy and incompleteness of present conditions, the community must frame and enforce protective laws for mothers, furnish instruction and material aid, control midwife practice, supply expert obstetric service in emergency, and provide neo-natal as well as prenatal service.

All of this service, in the very nature of things, must be under medical auspices. Theoretically such service should be available to all mothers and babies. How this community diffusion of professional skill and oversight will be accomplished is not yet clear. There are several possibilities. The alternatives are not confined to a choice between the good old family doctor (the private practitioner) and a contract State doctor. The socialization of medicine, judiciously interpreted, means simply the development of such coöperative techniques and arrangements as will enable the maximum number of men, women, and children to secure the benefits of medical science in the maintenance of health.

The infant-welfare conference. This forms the

next link in the chain of safety. The emphasis in this work has been on nutrition. The baby-welfare station, therefore, becomes a place where babies are weighed and milk is modified, and the clientèle drops off sharply at about the age of one. Where the numbers are large and time is short, it is natural that the efforts should be thus restricted. Ideally, however, infant-welfare work should have the full scope of health supervision from the beginning, and should be continued as such throughout the pre-school period. This means that the feeding work should be supplemented by thoroughgoing examinations to discover disease and defect. For this, high medical standards of diagnostic procedure, and nothing less, will suffice. Although it is at present inconvenient to realize these standards, they should be striven for. Otherwise infant-welfare work, in the medical sense at least, is in danger of becoming superficial and ineffective.

The children's health center. This is the outgrowth of the infant-welfare and milk station, and it is a recognition of the importance of maintaining health supervision beyond the bottle stage. Regulation of nutrition is an important feature of this supervision, but a complete diagnostic oversight is essential for the best results.

Limitations of finance and personnel make impossible an ideal program, but the medical resources of the community should be organized to permit at least a few intensive periodic health examinations during the pre-school stage of development. This would be

a very natural application of the life-extension idea, which both common and professional sense endorse.

The Federal Conference on Minimum Standards has suggested monthly visits to a children's health center, during the first year, and at regular intervals throughout the pre-school age. Dr. Baker, in the report of the Cleveland Health Survey, recommends that "Each child of pre-school age should receive a physical examination at least once every six months, and after any acute illness."

Specialized health clinics. The tendency of pre-school health agencies is to develop specialized clinics, like the nutrition, dental, and nose and throat, and rickets clinics; these make for efficiency when the work is properly coördinated. The best means of insuring such coördination is always to make the child and not the defect the point of departure and basis of correlation. The merit of complete periodic examinations is that it personalizes the work of health supervision and makes it somewhat more sincere.

These successive, life-extension examinations should culminate in a thorough health inventory at the time of school entrance, although the necessity of such a special examination is greatly reduced if we follow the logical policy of continuous pre-school supervision. If the administration of public health, through health centers, becomes as widely diffused as our present facilities for public education, then practically all children will receive the safeguards of such supervision.

Mental hygiene service. We are to-day only in an

embryonic stage of development with reference to the supervision of the health of young children. Some day our present provisions will seem meager, indeed, for it will be taken for granted that the whole pre-school population should be reached, and that the total developmental welfare of the child shall come definitely under scrutiny and guidance. Even now it is becoming clear that our supervision should have more concern for the mental and conduct aspects of development, and that it should aim to apply at least the elementary principles of mental hygiene.

The principles of mental hygiene are less nebulous and fugitive than is commonly supposed. It is not impossible to develop simple procedures in connection with health-center consultations, public-health nursing, and home visitation which will disclose many instances where the mental health is endangered or where the course of mental development is subnormal. The periodic health examinations should, in time, broaden into developmental examinations. They should be made to include a psychological inquiry into the health habits, the dispositions, capacities, and personality traits of the child, so that errors of development may be detected, and so that the parents may, from the beginning, assist the child to achieve mental as well as physical health. Many factors at the basis of healthy development, such as eating, sleeping, play, and social reactions, have to do with habit and with personality. Even in very young children health depends upon personal hygiene, and in the last

analysis pre-school health supervision must reckon with those intimate aspects of healthful living which will yield only to educational control.

The most promising method of approach for such control is the periodic developmental examination in consultation with one or both parents. Systematic parental group instruction in the educational psychology of child care and standards of normal personality development will also achieve results. This important field of combined medical and educational effort must be developed in the future if we are to organize a well-rounded, complete health service for the pre-school child.

2. Kindergarten and nursery establishments

The kindergarten as a child-welfare agency. We have repeatedly emphasized the importance of the kindergarten as a social and health-promoting agency. It is undesirable to make any sharp discrimination between the hygienic and educational functions of the kindergarten. In an effort to visualize a well-balanced organization of pre-school hygiene, the kindergarten presents itself as a flexible agency which might be put to varied uses for the whole age period from two to six years of age.

It has been suggested by Professor Snedden, in a recent paper in *School and Society* (March 4, 1922), that: "1. For fairly normal children from four to six years of age, schools are not greatly needed in the more normal, rural, village, and suburban environments.

2. Nor are they needed in the more prosperous urban environments where mothers regularly devote their available 'working' time to the care of their children." This would restrict the field of the kindergarten mainly to custodial and auxiliary welfare work for needy or abnormally circumstanced children living in thickly populated communities. The questions raised by these suggestions are far from academic. They concern the social policy of a very important part of our public school system, and the future administrative organization of a system of pre-school hygiene.

The kindergarten is not a universal feature of American education. In some communities it has by tradition become an integral and cherished part of the public school system; in other communities it is altogether lacking. There are in round figures four million American children between the ages of four and six. About one in ten of these attends a kindergarten. California, New York, New Jersey, Michigan, and Connecticut enroll in their kindergartens a proportion of from 32 to 25 per cent of the children of kindergarten age. Arkansas, Tennessee, West Virginia, North Carolina, and North Dakota enroll from .19 to .53 per cent. Note the decimal point.

This diversity is apparently not altogether conditioned by economic factors. Miss Julia Wade Abbot, of the Bureau of Education, cites two cities of the same size and wealth, of which one has kindergartens with an enrollment of 3693 children, and the other no kindergartens. She says:

The first city spends $92.16 per child for education, the other $37.12. In eight cities with a population between 100,000 and 200,000, the total wealth of four cities that have no kindergarten is larger than the wealth of those that have kindergartens. The inclusion of the kindergarten and other progressive educational features seems to be more a matter of intelligent opinion than a matter of finance. . . . In the past two years, there has been an increase of 37,811 children enrolled in kindergartens of varying size, distributed through thirty-one States. Thirty-seven per cent of this gain is in towns under 10,000. The steady increase in kindergartens distributed over thirty-two different States during this after-war period, when economy is still a large consideration in every school budget, together with the fact that the growth of the kindergarten is most marked in small communities, indicates that the kindergarten is being accepted as the right of every child in city and country, instead of merely being regarded as a welfare-agency for children living under abnormal conditions in large cities.

The kindergarten subject to pressure from two directions. This discussion discloses again the unsettled status of the kindergarten situation, and the complexity of the questions which the future must solve. For years the kindergarten has been under pressure from above to justify its usefulness as an educational agency. Much of this pressure has been exerted by school teachers and by educators, as well as by taxpayers. Now a new pressure is welling up from beneath, forcing the kindergarten to justify its usefulness as a health-promoting agency in the field of preschool hygiene. This pressure represents the accumulating demands of public health, medical, and social agencies concerned with the welfare of young children.

We believe that the kindergarten may survive both

pressures by evolving into an adaptable health and educational service institution which will reach both handicapped and relatively normal children. This adaptability can be achieved only by gradually enlarging the current conception that a kindergarten is a big room for the training of forty children of four to six, from nine till noon, five days in the week, from September to June. We imply, by our prevailing procedure, that all children equally and alike need the same kind of kindergarten, and that the kindergarten should be conducted on the same schedule and basis as an ordinary schoolroom.

The problems of pre-school hygiene are so individual, and so closely bound up with the home, that the kindergarten ought to develop a more versatile and distinctive technique. It should wield a freer lance and fill more discriminating functions in its field.

Functions of a reconstructed kindergarten. These functions have been described in some detail in previous chapters (Chapters IV, V, VII). They may be recapitulated here to indicate their many-sided relations to a comprehensive organization of pre-school hygiene.

1. The developmental education of "normal" children from three to six years of age. By this is meant a type of education which definitely stresses physical and mental hygiene, which is concerned with habits of healthful activity and wholesome social and motor development. The best modern kindergarten doubtless has an educational value even for favorably cir-

cumstanced children. We should not, however, assume that such education is needed every school day in the week throughout the school year for all of these age groups. The principle of part-time education and multiple use should be put into effect, so that the same facilities will reach a proportionately larger clientèle. Even if certain groups "attended" only once or twice a week, the value of truly educational work would assert itself. Education being conditioned by growth, of course, takes time; but education does not depend exclusively on continuous stimulation; sometimes the educative process is analogous to that of infection. A few exposures may suffice to innoculate.

It has not yet been demonstrated that it is educationally necessary or hygienic to send even first and second graders back to school in the afternoon for the same sort of experience which they had in the morning. Shorter and less frequent periods of institutional education for children of pre-school age may accomplish almost as much as longer and more frequent periods. Perhaps we should also consider the advisability of increasing our available personnel by putting the first grade on a half-time, one-session basis. By administering the kindergarten on the multiple and differential use plan, we can maintain effective contacts with a larger group of children and develop some of the more specific welfare and hygienic functions indicated below.

2. Parental guidance and training. The kindergarten should be more deliberately utilized as a dem-

onstration and training center for parents. High-school and part-time continuation pupils could serve courses of apprenticeship and observation, rendering valuable assistance in the process. The parents of the children themselves ought, periodically, to come to the kindergarten for stimulus and concrete instruction in child care. Even with full-time sessions the child is in his own home for most of each day, and only by exploiting methods of parental training and guidance can the fundamental home life of the child be reached. Altogether apart from the welfare of the parents themselves, this kind of educational service must be rendered by the future kindergarten if it is to promote the full welfare of the pre-school child. Kindergarten adjuncts of nurseries and settlements likewise ought to make parental work a major objective.

3. Educational provision for handicapped pre-school children. In some way or other we must ameliorate the developmental handicaps of subnormal and exceptional children of pre-school age. What social institution is in a better position to work out provisions and procedure in this complex field than the kindergarten? In coöperation with the State and local divisions of special education, on the one hand, and with local child hygiene agencies on the other, it can grapple with this undertaking. In large communities auxiliary nursery kindergartens, comparable to special classes and special schools, would offer a partial solution. Full or part-time shelters for certain cases may ultimately be provided by local communities.

There are children and mothers enough who need such substantial help. The most promising line of immediate attack is an auxiliary type of kindergartner who, as an expert, would initiate and supervise special programs and arrangements created for the benefit of the handicapped child, both at home and at school. Just as departments for the blind are sending special teachers as agents into the home to teach the adult and aged who have lost their vision, so can the responsible authorities of the kindergarten create mobile agents who will assist the handicapped pre-school child both through the home and school equipment. Remote as this kind of educational adjustment work may now appear, it will steadily grow more urgent as the present embryonic activities of pre-school clinics and consultation centers come to their fuller issue.

4. The hygienic regulation of school entrance. This function is closely related to the one just mentioned. When the kindergarten becomes informed with the spirit and armed with the methods of child hygiene, it will take on the aspect of a health station where children will be observed, conditioned, and adjusted in the most plastic period of their development. The primer, the multiplication table, and age six, may then sink into proper perspective, and the kindergarten become a living instrument of hygiene which will bind into functional union the public school and fundamental agencies of infant and family welfare.

3. The family

Home factors in the organization of pre-school hygiene. The social control of pre-school hygiene need not result in a decline of power or responsibility in the home. On the contrary, it should be the central objective of such control to increase and to direct the parental care of young children. If we were to follow the easiest path of State regulation, we should soon be considering some glorified compulsory form of State nursery for the rearing of all infants, and a benevolent type of State medicine to insure their complete development. The fundamental administrative and governmental problem in the organization of pre-school hygiene consists, negatively, in avoiding just such tendencies, and positively in elevating the standards and practice of domestic life.

It has been outside the scope of this volume to consider in any detail the relation of economic factors to the efficiency of the home. The number of dollars a father earns, the number of hours he and his wife work, the number of rooms in the home and the square feet of windows, all bear with lawful effect upon the life and death of children, particularly young children. The correlation of infant mortality and of rickets with living conditions has been given mathematical demonstration. Adequate city planning, housing reform, mothers' pensions, and living wages, therefore, will have a decisive determination on the influence of the home. Social regulation of the welfare of young

children ought so far as possible to make good deficiencies in the child environment through rehabilitation of the home. Much, indeed, that we say about parental training and responsibility becomes hollow words in the presence of poverty.

Side by side, however, with the economic or material factor normally stands the educational or functional factor. Even nutrition depends not only on dollars and cents, but upon the "functional factor" of intelligence — intelligence in the selection, preparation, and proper eating of food. In the whole field of child hygiene we have to reckon with the good judgment, the attitude, the prejudices, and the good-will of mothers, fathers, and brothers and sisters, because, in the last analysis, the hygienic fortunes of the pre-school child largely hang upon these intangibles which make up the morale and effectiveness of the home.

The problems of public sanitation include such tangibles as plumbing, cubic air space, and bacterial content of milk, which are truly fundamental; but in addition we have that vast psychological complex of problems which must also be reckoned with and attacked by whatever methods of engineering we can devise. No small part of the administrative task of organizing pre-school hygiene must resolve itself into just such engineering.

Basic significance of pre-parental education. Hitherto we have depended, for influencing the home, upon general publicity, personal persuasion through conferences and home visitation, and by various forms

of family-welfare approach. Valuable as all these kinds of approach are, they are too piecemeal and supplementary in character to meet the growing needs of the future. If higher standards and improved methods of child care are so essential to the organization of an adequate program of pre-school hygiene, then must systematic parental and pre-parental education be made a major problem in civic administration.

There will be no simple solution for this problem. It will not suffice to give girls ordinary home-making courses, which, in spite of their concrete aspect, miss countless issues in the field of child care that might be educationally anticipated. Pre-parental education must be made to include boys as well as girls, and it must be less incidental in character. It should be based on first-hand acquaintance with at least all the public and socialized aspects of child hygiene and child welfare. It should be enriched in content and detail. It should embrace in a concrete way the mental development and the mental hygiene of infancy. It should include a course in the educational as well as the physical hygiene of rearing children. It should be so sound in content and direct in spirit that pious moralization about the ideal home will become superfluous. If society depends upon education as a form of self-conscious evolution, how else can we fill the present void in our curriculum, and bring to the home, as a social institution, the support which it seems to need?

This deep-reaching type of pre-parental education can be evolved only by close coöperation between

public health, medical, and educational leaders. It represents the kind of coöperative enterprise which is becoming more and more imperative in many fields of social endeavor. Fortunately the basic principle for the coöperation is one which in itself should draw all minds together — "Children need wise and good parents."

This is the principle. And the problem is to increase that wisdom and goodness by timely education. Formulated in these terms the task of the organization of pre-school hygiene falls with no small weight upon the leaders of public education — the custodians of that vast social agency which enrolls not only twenty million pupils, but, by the same token, holds the millions who in a few years will be the parents of the Nation's pre-school children.

APPENDICES

A. CHRONOLOGY OF PRE-SCHOOL HYGIENE

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APPENDIX A

CHRONOLOGY OF PRE-SCHOOL HYGIENE

1774. Nursery school opened by Pastor Oberlin, France.

1780. Prophylactic power of vaccination discovered by Jenner.

1781. Pestalozzi publishes *Leonard and Gertrude: My Book for the People.*

1799. Infant factory school established by Robert Owen, Scotland.

1811. Decree of Napoleon. Imperial decree declaring State obligations to foundlings, abandoned children, and poor orphans.

1826. *The Education of Man.* Published by Froebel, founder of the kindergarten.

1827. Infant School Society organized in New York.

1837. Compulsory birth registration enacted in England.

1844. Day nursery founded in Paris.

1859. Publication of *Origin of Species*, by Charles Darwin.

1865. Society for the Protection of Infants organized in France to instruct mothers in child care and to encourage maternal nursing.

1865. The Manchester and Salford Ladies' Health Society. The pioneer (English) agency for child-welfare home visitation.

1872. Life Protection Act passed in England, providing for the registration, licensing, and supervision of infant-caring institutions. (First legal effort to diminish infant mortality.)

1874. Roussel Law for the protection of infants to correct the abuses of the practice of wet-nursing in France.

1876. *Allaitement Maternel* established as a refuge for mothers to encourage them to nurse their children.

1877. First law forbidding employment of women before and after child birth. (Switzerland.)

1878. First laboratory in experimental psychology, founded by Wilhelm Wundt.

1880. *The Contents of Children's Minds on Entering School,* published by Dr. G. Stanley Hall, genetic psychologist and father of child-study movement.
1889. Good Samaritan Dispensary opened in New York City. The first American milk station.
1889. First English milk station for babies opened in England, at St. Helen's.
1892. First Infant Welfare Consultation Center established at the Charité Hospital in Paris, by Dr. Budin.
1892. Founding of *Mutualité Maternelle,* a mutual benefit society for mothers.
1896. National Congress for Infancy. (Florence.)
1896. First "Psychological Clinic," established in Philadelphia.
1901. The Ghent School for Mothers.
1902. League against Infant Mortality. (Paris.)
1902. The Midwives Act. (England.)
1905. International Congress of Milk Depots. (Paris.)
1906. Committee of One Hundred on National Health formed. (United States.)
1906. First infant-welfare consultation center established in England.
1906. National Conference on Infant Mortality. (London.)
1907. St. Pancras (England) Motherhood School. Caroline Rest (New York) for Mothers.
1907. Notification of Births Act (England). Makes registration of births within thirty-six hours compulsory. Amended, 1915.
1907. International Union for the Protection of Child Life. (Brussels.)
1908. First municipal Department of Child Hygiene, established in New York City.
1909. American Association for the Study and Prevention of Infant Mortality, founded in New Haven, Connecticut.
1912. Federal Children's Bureau organized "to investigate and report upon all matters pertaining to the welfare of children and child life among all classes of our people."
1914. First State Department of Child Hygiene, established in New York.

1916. National Baby Week.
1917. Federal Board for Vocational Education created by the Smith-Hughes Law. Provides for vocational home-making education.
1918. The Education Act (England). Provides for grants in aid for nursery schools.
1918. Maternity and Child Welfare Act (England).
1919. League of Nations Covenant signed at Versailles. Article 23 contains clauses providing for international coöperation in matters relating to the health and welfare of women and children.
1919. Ministry of Health Act (England). Provides for medical inspection and treatment of children of pre-school and school age, under the Ministry of Health.
1919. Children's Year. Federal Conference on Minimum Standards for Child Welfare.
1920. National Child Health Council formed. (See Appendix D.) A similar Central Council of Infant and Child Welfare was formed in England.
1920. Child Welfare Department established by the Canadian Government.
1921. Federal Maternity and Infancy Law. (United States. Sheppard-Towner Act. See Appendix C.)

APPENDIX B

MINIMUM STANDARDS FOR CHILD WELFARE

THE Children's Bureau Conference on Child-Welfare Standards was called by the Secretary of Labor at the request of the President of the United States. The purpose of the undertaking was to formulate and to publish standards for the better protection of children. The preliminary conference was held at Washington, May 5–8, 1919.

The Washington Conference was participated in by many American authorities. It was advised by representatives of Belgium, France, Great Britain, Italy, Japan, and Serbia. The foreign delegates reported especially on what their nations had learned concerning the better protection of children as a result of their war experiences.

We reproduce herewith the minimum standards proposed for the public protection of the health of mothers and of preschool children. (Children's Bureau Publication No. 62.)

MATERNITY

1. Maternity or pre-natal centers, sufficient to provide for all cases not receiving pre-natal supervision from private physicians. The work of such a center should include:
   a. Complete physical examination by physician as early in pregnancy as possible, including pelvic measurements, examination of heart, lungs, abdomen, and urine, and the taking of blood pressure; internal examination before seventh month in primipara; examination of urine every four weeks during early months, at least every two weeks after sixth month, and more frequently if indicated; Wassermann test whenever possible, especially when indicated by symptoms.
   b. Instruction in hygiene of maternity and supervision throughout pregnancy, through at least monthly visits to a maternity center until end of sixth month, and every two weeks thereafter.

Literature to be given mother to acquaint her with the principles of infant hygiene.

c. Employment of sufficient number of public-health nurses to do home visiting and to give instruction to expectant mothers in hygiene of pregnancy and early infancy; to make visits and to care for patient in puerperium; and to see that every infant is referred to a children's health center.

d. Confinement at home by a physician or a properly trained and qualified attendant, or in a hospital.

e. Nursing service at home at the time of confinement and during the lying-in period, or hospital care.

f. Daily visits for five days, and at least two other visits during second week by physician or nurse from maternity center.

g. At least ten days' rest in bed after a normal delivery, with sufficient household service for four to six weeks to allow mother to recuperate.

h. Examination by physician six weeks after delivery before discharging patient.

Where these centers have not yet been established, or where their immediate establishment is impracticable, as many as possible of the provisions here enumerated should be carried out by the community nurse, under the direction of the health officer or local physician.

2. Clinics, such as dental clinics and venereal clinics, for needed treatment during pregnancy.
3. Maternity hospitals, or maternity wards in general hospitals, sufficient to provide care in all complicated cases and for all women wishing hospital care; free or part-payment obstetrical care to be provided in every necessitous case at home or in a hospital.
4. All midwives to be required by law to show adequate training, and to be licensed and supervised.
5. Adequate income to allow the mother to remain in the home through the nursing period.
6. Education of general public as to problems presented by maternal and infant mortality and their solution.

Infant and Pre-School Children

1. Complete birth registration by adequate legislation requiring reporting within three days after birth.
2. Prevention of infantile blindness by making and enforcing adequate laws for treatment of eyes of every infant at birth and supervision of all positive cases.
3. Sufficient number of children's health centers to give health instruction under medical supervision for all infants and children not under care of private physician, and to give instruction to mothers in breast feeding and in care and feeding of children, at least once a month throughout first year, and at regular intervals throughout pre-school age. This center to include a nutrition and dental clinic.
4. Children's health center to provide or to coöperate with sufficient number of public-health nurses to make home visits to all infants and children of pre-school age needing care — one public-health nurse for average general population of 2000. Visits to the home are for the purpose of instructing the mother in —
   a. Value of breast feeding.
   b. Technic of nursing.
   c. Technic of bath, sleep, clothing, ventilation, and general care of the baby, with demonstrations.
   d. Preparation and technic of artificial feeding.
   e. Dietary essentials and selection of food for the infant and for older children.
   f. Prevention of disease in children.
5. Dental clinics; eye, ear, nose, and throat clinics; venereal and other clinics for the treatment of defects and disease.
6. Children's hospitals, or beds in general hospitals, or provision for medical and nursing care at home, sufficient to care for all sick infants and young children.
7. State licensing and supervision of all child-caring institutions or homes in which infants or young children are cared for.
8. General educational work in prevention of communicable disease and in hygiene and feeding of infants and young children.

APPENDIX C

WORKINGS OF THE NEW MATERNITY AND INFANCY LAW

FACTS of interest about the Sheppard-Towner Act, of December 23, 1921, for the Promotion of the Welfare and Hygiene of Maternity and Infancy, as summarized in "Mother and Child," vol. 3, No. 1.

How the States may secure the benefits of the Act.

1. The State Legislature must, or the Governor may, for a period limited to six months after the adjournment of the first regular session of the passage of the Act —
   a. Accept the provisions of the Act.
   b. Designate a State agency with which the Children's Bureau is to coöperate in carrying out the purposes of the Act. In any State having a Child Welfare or Child Hygiene Division in its Health Department or Board, that division must be designated.
2. The Child Hygiene or Child Welfare Division of the Department of Health or other designated agency must —
   a. Submit detailed plans for carrying out the provisions of the Act within the State to the Children's Bureau for approval by the Federal Board of Maternity and Infant Hygiene. Section 8 of the Act provides that if the plans submitted by a State are in conformity with the provisions of this Act, and reasonably appropriate and adequate to its purposes, they shall be approved by the Board.
   b. Make such reports to the Children's Bureau concerning its operations and expenditures for the purposes of the Act as shall be prescribed or requested by the Bureau.

What the benefits of the Act are.

1. Funds available.
   a. For the fiscal year ending June 30, 1922 $1,408,000
      To be equally apportioned among the States and granted outright to States accepting the provisions of the Act... 480,000
      To be apportioned to the States if matched dollar for dollar by State appropriations, $5000 to each State..... 240,000
      To be apportioned to the States if matched dollar for dollar by State appropriations in the proportion which their population bears to the total population of the States of the United States 710,000
      For Federal administration, not to exceed 50,000
   b. For each of five years after June 30, 1922 1,240,000
      Of this amount, $240,000 is to be equally apportioned among the States and granted outright, and the remaining items are the same as authorized for 1922.
2. Prohibitions as to use of funds. May not be applied to the purchase, erection, preservation, or repair of any building or buildings or equipment, nor for the purchase or rental of any buildings or lands, nor for the payment of any maternity or infancy pension, stipend, or gratuity.

Powers and duties of the Children's Bureau under the Act.

1. To coöperate with the agency designated by the several States.
2. To make such studies, investigations, and reports as will promote the efficient administration of the Act.
3. To certify to the Secretary of the Treasury of the United States and to the Treasurers of the States the amount which has been apportioned to each State for the fiscal year.
4. To carry on the general administration of the Act.

The Federal Board of Maternity and Infant Hygiene.

1. Membership — Chief of the Children's Bureau, Surgeon-General of the United States Public-Health Service, and United States Commissioner of Education.
2. Chairman — to be elected by the Board.
3. Powers —
   a. To approve or disapprove plans submitted by the States.
   b. To withhold further certification of Federal funds to a State if the money is not properly expended. A State may appeal from the decision of the Board to the President of the United States.

APPENDIX D

LIST OF REPRESENTATIVE CHILD-WELFARE AGENCIES

National Agencies Working for the Welfare of the Child

A. Federal agencies.
   1. Children's Bureau, United States Department of Labor.
   2. Bureau of Education, United States Department of the Interior.
   3. Public Health Service, United States Treasury Department.
   4. States Relations Service, United States Department of Agriculture.
   5. United States Federal Board for Vocational Education.

B. Agencies financed by private funds.
   Some representative agencies are as follows:
   *1. American Child Hygiene Association, 532 Seventeenth Street, N.W., Washington, D.C.
   *2. American Red Cross, Washington, D.C.
   3. American Social Hygiene Association, 105 West Fortieth Street, New York City.
   *4. Child Health Organization of America, 156 Fifth Avenue, New York City.
   5. Child Welfare League of America, 130 East Twenty-Second Street, New York City.
   *6. National Child Labor Committee, 105 East Twenty-Second Street, New York City.
   7. National Child Welfare Association, 70 Fifth Avenue, New York City.
   8. National Committee for Mental Hygiene, 370 Seventh Avenue, New York City.
   9. National Committee for the Prevention of Blindness, 130 East Twenty-Second Street, New York City.

10. National Congress of Mothers and Parent-Teacher Association, 1201 Sixteenth Street, N.W., Washington, D.C.
11. National Organization for Public Health Nursing, 156 Fifth Avenue, New York City.
12. National Probation Association, 380 Seventh Avenue, New York City.
*13. National Tuberculosis Association, 381 Fourth Avenue, New York City.
14. Playground and Recreation Association of America, 1 Madison Avenue, New York City.
15. Russell Sage Foundation, 130 East Twenty-Second Street, New York City.
16. National Child Health Council, 370 Seventh Avenue, New York City. This is a coördinating organization consisting of representatives from the five national agencies indicated above by an asterisk.

STATE AGENCIES WORKING FOR THE WELFARE OF THE CHILD

A. State boards of health and bureaus of child hygiene.
B. State boards of charities and correction and child-welfare divisions.
C. State departments of education.
D. State departments of labor.
E. State institutions for dependent, delinquent, and physically or mentally handicapped children.
F. State child welfare or children's code commissions, and other special boards.

LOCAL AGENCIES WORKING FOR THE WELFARE OF THE CHILD

A. City and county: Departments of health, divisions of child hygiene, departments of charities, children's institutions, juvenile courts, departments of education, recreation, etc.
B. Private: Child hygiene associations, health centers, visiting nurse associations, day nurseries, associated charities, children's aid and protective societies, children's institutions, etc.

APPENDIX E

ORGANIZATION AND ACTIVITIES OF PRE-SCHOOL AGENCIES

What is being done for the pre-school child? A concrete answer to this question can be found in part in the official reports of various organizations, such as those listed in this and in the preceding appendix. Useful printed literature may usually be secured by writing a postal card or letter of request to the secretary of the agency.

The subjoined reports are convenient summaries, most of which have been made out in accordance with a standard form used by the American Child Hygiene Association, for reporting in its annual volume of proceedings the activities of its affiliated societies. A selection of representative organizations has been made from these reports.

The standard form is also printed below. This will furnish a suggestive outline to any student group desiring to make a survey of local pre-school hygiene agencies.

1. Outline for reporting the Organization and Activities of a Child Welfare Agency

Name and address of organization.
When organized.
I. A. Federal. State. County. Municipal.
B. Voluntary.
II. Scope of work:
(Describe fully.)
III. A. Governing Board:
1. Number of men.
2. Number of women.
B. Auxiliary Board:
IV. Staff:
A. Nurses:
1. Number of supervisors.
(Indicate type of supervision.)
2. Number of field workers.

B. Doctors:
   1. Number on full time.
   2. Number on part time. Number of hours.
   3. Number on free service. Number of hours.

C. Dentists:
   1. Number on full time.
   2. Number on part time. Number of hours.
   3. Number on free service. Number of hours.

D. Social Workers:
   1. Trained.
   2. Volunteers. Full time. Part time.

E. Nutritionists:
   1. Number on full time.
   2. Number on part time.

F. Clerical assistants: Number and salaries.

V. Divisions of work:

If a part of a Health Center indicate by H.C.

A. Pre-natal:
   1. Number of weekly clinics with obstetricians in charge.
   2. Number of nurses doing
      a. Clinical work.
      b. Field work.
      c. Supervisors.
      d. Number on full time.
      e. Number on part time.
      f. Number of hours on supervisory work.

B. Obstetrical:
   1. Number of deliveries by obstetricians
      a. In hospital.
      b. In out-patient service.
      c. In patient's home.
   2. Number of deliveries by midwives.
   3. By whom licensed and supervised.

C. Infant care (under 1 year):
   1. Number of centers at which clinics or conferences are held.
   2. Total number of weekly conferences or clinics.
      a. Preventive consultations.
      b. Clinics for sick babies.
      c. Combination clinics for sick and well infants.
   3. Percentage of breast-fed babies under six months on your roll.

D. Pre-school age (1–6 years):
   1. Total number of weekly clinics or conferences.
      a. Preventive consultations.

b. Clinics for sick children.
c. Clinics for both sick and well children.
d. Number of nutritional classes separate from the clinics.
e. Nutritional classes affiliated with infant clinics.
(1) Same hour.
(2) Separate time.

2. Is the mental health of the child given especial consideration at this age? In what manner?
3. Dental clinics.
4. Immunization.
5. Cardiac clinics.

E. School age and adolescence:

1. What is your city or town or county doing in regard to medical inspection in your schools?
a. How many full time medical officers?
b. How many part time medical officers?
c. How many school nurses?
(1) Average time (weekly) given to school inspection.
(2) Average time (weekly) given to home visiting.
(3) Duties of school nurses during summer months.
2. Have you health development classes?
a. Under supervision of teachers?
b. Under supervision of medical officers?
c. Under supervision of nurses?
d. Under physical educators?
3. How are your Medical Inspection, Health Development, and Physical Education Departments coordinated?
4. Percentage of defects corrected during the year 1920.
5. Please state nature and frequency of mental tests made.
6. Nutritional classes:
a. Number of weekly classes for school children.
b. Conducted by whom:
(1) Physician.
(2) Nurse.
(3) Dietitian.
c. Method:
(1) Is class method used?
(2) Is individual method used?

d. State average weekly number of home visits
(1) By nurses.
(2) By dietitians.

F. Communicable disease control, including tuberculosis and venereal diseases:
1. What is your city or town doing towards the control of communicable diseases?
2. What communicable diseases are
a. Reported?
b. Isolated?
c. Quarantined?
d. By whom is quarantine controlled?
e. By whom is quarantine lifted?
3. Are quarantined cases cared for by nurses?
a. By special nurses?
b. By general group nurses?
4. Is a Wassermann test given routinely?
a. At what ages?
b. Are positive reactions followed by routine treatment?

G. Are your activities limited to your own city or town?

H. If you direct county or State work in connection with the work of your local organization, please describe extension work.

I. Have you a mobile unit in service? (Describe fully.)

J. Care of dependent children:
1. Have you a boarding-out system? Age limits.
a. Number of homes supervised.
b. Average number of children in each home at one time.
c. Medical and nursing supervision.

K. Children of unmarried mothers:
1. Have you made an especial study of the health and environment of the children born of unmarried parents?
2. What action has been taken to improve such conditions?

VI. Statistical:
A. Pre-natal care:
1. Total number of mothers cared for during the year.
2. Average number of months under care.
3. Total deaths of mothers —
a. During pregnancy.
b. At childbirth.
c. During the puerperium.

4. Total number of infant deaths —
    a. At birth.
    b. During the first month.
5. During what month of pregnancy do the women come under your care?
    a. Average cases.
    b. Earliest cases.

B. Post-natal care. Infant care. Pre-school age and older children.
1. Age limit of babies or young children under care.
2. Total number under 1 year cared for.
3. Total number between 1 and 5 years cared for.
4. What percentage of babies born in your city or town during the current calendar year or during your current fiscal year are under the supervision of your organization?
5. What percentage of the babies born within the preceding year, in the districts covered by your association, have come under the supervision of your association?
6. Total attendance during the year at consultations or clinics —
    a. Under 1 year.
    b. From 1 to 5 years.

C. Is your city zoned into health districts?

D. General:
1. Total population of your city or town.
2. Total births in your city or town for year ending December 31, 1920.
3. Total deaths under 1 year:
    a. In your city or town for year ending December 31.
    b. Among the infants under your care.
4. Total deaths among children from 1 to 5 years:
    a. In your city or town for year ending December 31.
    b. Among the children under your care.

VII. Record systems:
A. Have you a continuous record of child, including prenatal care and extending through school age period?
1. Does your record indicate
    a. Defects remedied?
    b. Character of feeding?
    c. Environmental surroundings controlled?

2. Do you use
    a. A national record form?
    b. One of your own?

VIII. Public-health education:
Have you a wide-awake public-health education committee, which is putting across to the community health facts, which will enable all children to secure their right to intelligent care and healthful surroundings?

IX. Coöperating agencies:
A. Does your town, city, or county have a Children's Council?
B. What is the nature of coöperation between your organization and other groups interested in child life?
    1. State —
        a. Department of Health.
        b. University.
    2. City Department of Health.
    3. Hospitals.
    4. Medical schools.
    5. Relief organizations.
    6. Private groups.
    7. Nursing groups —
        a. Undergraduates.
        b. Post-graduates.

X. Have you a Division of Child Hygiene in your State?

XI. Have you a Division of Child Hygiene in your city?

XII. Improvements observed as a result of activities of previous year:
A. Improved health among children.
B. Lessening of communicable diseases.
C. Increased intelligent care on the part of fathers and mothers.
D. Wider community interest in the health of children, as manifested by
    1. Increase in number of clinics or classes.
    2. Increase in medical and nursing care.
    3. Increase in budget for care of children.
    4. Decrease in
        a. Infant mortality rate.
        b. Death rate of children.
    5. Decrease in morbidity rates —
        a. Infant.
        b. Children from 1 to 5.

XIII. Financial.
A. Total budget for the current fiscal year.

B. How is your organization supported?
   1. By membership dues.
   2. By appropriation from city or State.
   3. By special contributions.
   4. Through a community chest.

C. What method or methods have you found most successful in raising funds?

D. Is the work that is done by your association given free of charge or do you ask a fee?
   1. Amount of fee if one is asked.

XIV. Supplemental statement.

2. Visiting Nurse Association

Santa Barbara, California

1. Organized 1908.

2. *Scope:* Community visiting nursing and public health education; infant welfare clinic and follow-up service; dental clinic for school children; health supervision of parochial schools and orphanage.

3. Governing board of twelve women.

4. At present the staff consists of a supervisor and three day nurses, with a registrar who takes care of the office, and also acts as interpreter of Spanish. A night nurse has recently been added. The city is divided into three districts, each nurse doing all the work in the district assigned to her. Three Ford cars are in use, thus the working value of the staff is almost doubled, as distances in Santa Barbara are long and street car service very poor.

The districts are small and each one embraces a parochial school or other institution such as an orphanage, the supervision of which is included in the nurses' work.

6. *Statistical. Pre-natal care:* Two hundred and nine mothers during the year. Post-natal care was given to 381 children under 1 year, and to 424 between 1 and 5 years. Sixty per cent of the babies born in Santa Barbara are under the care of the Association.

Total population of Santa Barbara, 19,500. Total births for year ending December 31, 1920, 463. Total deaths under 1 year for same period, 34 stillborn, or within 24 hours; 20 deaths.

7. *Record forms:* The forms prepared by the N.O.P.H.N.

are used by the Association. They give a continuous record from the pre-natal period through school age.

14. The Santa Barbara Visiting Nurse Association was started in 1908 with about 200 members and such donations as could be obtained. Its object is to make visiting nurse service available in the community, and further the interests of public health in all ways possible.

It is financed through membership fees and special contributions. After the first year, two nurses were supported, and in 1910 the Association purchased its present office and home, where a general dispensary was opened. To this the physicians of the city gave generously of their time and support, until 1917, when that phase of the work was taken over by the Cottage Hospital, in order that this Association might devote more of its time to nursing in the homes.

A third nurse was found to be necessary in 1913, and a year later the Association inaugurated school nursing, which has since been continued by the Board of Education and in close coöperation with our work.

Because of the number of undernourished children in the public schools, who are easy victims of tuberculosis, an Open Air School, the first in California, was established in 1915, with the proceeds of the Christmas Seal Sale, and in coöperation with the City Board of Education. The present school is in a building which is donated rent free by the Associated Charities. It has been remodeled to meet the requirements of an open air room, and an attractive dining room and kitchen added. It is open to visitors during school hours.

In 1916 a dental clinic for children was established, and has been maintained twice weekly since. It is for children whose parents cannot pay for dental service, but all who can do so are required to pay for materials used.

In 1918, as an outcome of the Children's Year program, an infant welfare clinic was established and has been maintained weekly since. To this clinic mothers bring their infants for weighing and advice as to feeding, etc.

The clinic rooms have recently been remodeled in order to give greater comfort to the waiting mothers and babies. Small white enamel tables with tops $2 \times 3\frac{1}{2}$ feet having a partitioned shelf underneath, have been made. During the clinic the tops are covered with washable pads. Chairs are

provided and the mothers are enabled to undress their infants on the tables, while the clothing is put on the undershelf. Sixteen babies may be undressed at a time and wrapped in blankets awaiting inspection by the physician in the consulting room. Thus the danger of contact of clothing is obviated, and the process of dressing is more comfortable for both mother and baby.

The nurse from whose district the baby comes is present when the doctor sees the child, thus enabling her to work more intelligently with the mother in the home.

In 1910, 3241 visits were made; in 1920, 9569.

No special rates are charged for nursing care. All patients are expected to pay in accordance with their means. It is one of the objects of the Association to make a skilled hourly nursing service available to every resident of the city of Santa Barbara.

HELEN A. PARKS, R.N., *Superintendent*

3. PROVINCE OF QUEBEC

Child Welfare Association, Montreal

1. Organized in 1916. A voluntary organization operating throughout the Province.

2. *Scope:* Educational propaganda in connection with child welfare.

3. The Association is governed by a board of 11 men and 4 women.

4. *Staff:* One doctor, one trained social worker, two clerical assistants.

6. Total population of Montreal, 900,000.

10. There is no Division of Child Hygiene in the Province of Quebec.

11. There is no Division of Child Hygiene in connection with the Montreal Board of Health.

13. The Association is supported by membership dues, special contributions, and the work is done free of charge.

The Child Welfare Association conducts each year in the city of Montreal a "Child Welfare Week" which deals with all phases of child welfare. During the summer the Association made a child health tour of one month's duration through the Province of Quebec. The train was composed of two

coaches, one fitted as an exhibit and demonstration car and the other as a consultation room and living quarters for the staff of eight professional workers: Drs. W. A. L. Styles and H. Lapointe; nurses, Miss L. Gauthier, Miss S. Panet-Raymond, Miss M. Slattery, and social workers, Miss H. T. Lambert, Miss M. E. Whalen and Mr. Fred McCann.

During the tour the "Child Health Special" visited 37 communities and covered 1100 miles. The tour was made possible through the coöperation of the Canadian Pacific, the Grand Trunk, the Central Vermont, and the Quebec Central railways. All towns touched by the "Special" were visited either by nurse in charge, Miss L. Gauthier, or by Mr. E. C. Gannon, who acted as advance agents and explained the aims of the tour.

The expense connected with this health pilgrimage was borne by the Child Welfare Association of Montreal, with the exception of an additional salary being paid to one French physician and to one French nurse by L'Université de Montreal, and a contribution of $500 from the Provincial Red Cross toward the movement.

The staff made a thorough physical examination of 1014 children under the age of 14 years and partial examination of several hundred others, giving advice to mothers in each case. A motion picture apparatus and films were carried on the train, and in towns where an assembly hall was available the health films were shown and addresses given in the matter of public health by Dr. Lapointe, Dr. Styles and Miss T. Lambert. Direct contact was established with the children at each point by Miss Whalen. Literature and instructions were given in the matter of health habits and throughout the province hundreds of children are playing the "Health Game."

The interest elicited by the "Child Health Special" was shown by the fact that mothers with their children came from distances of ten to twenty miles to consult the doctors regarding the health of their little ones and to receive supplementary advice. One mother came twenty miles with her two children. They were healthy but she wanted to find out whether or not she was doing what she should for them.

MARY E. WHALEN, *Asst. Executive Secretary*

4. Health Center

New Haven, Connecticut

1. Date of opening: July 12, 1920.

Auspices: Board of Health, Visiting Nurse Association, New Haven County Chapter of the American Red Cross, New Haven Medical Association.

Area served: Wards 10, 11 and 12; 75 city blocks in form of triangle, measuring a mile along its base and a mile along its perpendicular. Approximately 360 acres.

4. *Staff:*

At headquarters: 1 director, 1 medical director, 1 assistant medical examiner (afternoons), 2 part-time physicians (well-baby conferences), 1 secretary-stenographer, 1 headquarters nurse (V.N.A.).

Field work (V.N.A.): 1 supervising nurse one third time (V.N.A.), 1 assistant supervising nurse, full time (V.N.A.), 7 public health field nurses (V.N.A.), 1 dietitian, 2 days each week (V.N.A.).

Field work (Department of Health): 2 school nurses (D. of H.), 1 sanitary inspector (D. of H.), 1 dental hygienist (D. of H.), 1 one half time contagious disease nurse (D. of H.).

Volunteers (giving from 3 to 10 hours per week): 1 clerical and statistical worker, 2 social service follow-up workers, 1 copier of birth and death certificates.

5. *Activities* (*educational*): Health Center circulars, 7; free health literature, on request; window exhibits, about 40; newspaper articles, about 80; health clowns, 4 performances; lantern slides (in automatic attractoscope), 100 special slides; motion pictures (in portable machine), on special occasions; posters, a large number; health lectures, on request; health information service in daily use.

Activities (*medical*): General medical examination and consultation service, including pre-natal, held daily; average number attending monthly, 350. Four infant welfare conferences held weekly; average number attending monthly, 360. Examination of school children for release to school (during term) held daily, 8: 30–10; average number attending monthly, 166.

Classes: Two nutritional classes (held in settlement houses)

held weekly; average number attending each class each week, 15.

Board of Health duties: As Associate Epidemiologist, in charge of communicable disease control in district. Performs the examination of school children for readmittance to school.

6. Population of New Haven	165,000
Population of District by U.S. Census, January 1, 1920	26,840
Foreign-born	40%
Born in Italy	26%
Born in Ireland	4%
Born in Poland	3%
Born in Russia	2%
Born in other countries	5%
Native-born of foreign parentage (largely Italian)	48%
Native-born of native and mixed parentage	12%
Dwellings	2,036
Families	5,150

Health services (summarized)	Year ending June, 1921
School nurses	27,523
Dental hygienist	1,639
Sanitary inspector	6,379
Visiting nurses	22,998
Dietitian	983
Baby conference attendance	3,406
Health Center Headquarters	6,770
Total health services	69,748

Nursing districts: The district is divided into seven nursing districts, each having one nurse doing generalized work. However, the school child population of 5300 is under the supervision of the two school nurses, except where bedside nursing is required, which is infrequent.

9. *Coöperating agencies.* Excellent coöperation exists with all health and social welfare agencies of the city. There is a local Advisory Council of 30 representative citizens in the district, which meets at the call of the Director to discuss local problems.

14. *Sources of support:* Department of Health: Gives its moral support, details five employees and has contributed $11,050 for first year and three-quarters. Visiting Nurse Association: Has undertaken demonstration of generalized nursing work in district, providing eight nurses, two supervisors, and a part-time dietitian. American Red Cross: Initiated the idea of the Health Center, made preliminary survey, loaned all office furniture and contributed $17,400 for the first year and three-quarters. New Haven Medical Association: Appoints two members to serve on Board of Control

PHILIP S. PLATT, M. A., C. P. H., *Director*

5. CHILD WELFARE RESEARCH STATION, STATE UNIVERSITY

Iowa City

1. Organized in 1917.

2. *Scope of work:* Investigation of the best scientific methods of conserving and developing the normal child, the dissemination of information acquired by such investigation and the training of students for work in such fields.

3. *Governing board:* Director, President of the University, and the State Board of Education, with an Advisory Council.

General purpose: Recognizing the presence in every community of increasing numbers of defectives, delinquents, degenerates, derelicts, and social misfits, the energies of the station are turned to the constructive problem of materially reducing this social and economic waste by preventive means. The purpose of the station is to develop practical methods of child-rearing, modified to suit the varied needs of child life, and to give to parenthood dependable counsel to insure the continuous improvement of every child to maximum ability, consistent with its native endowment and special abilities.

The points of view of the Research Station are those of the natural and applied sciences, where a limited number of definite basic problems are selected with the conditions standardized so that the experiments may be repeated, controlled and modified. The station performs three closely interrelated functions as provided by law: investigation,

dissemination of information and training of research students.

Investigation: As its name implies, the Iowa Child Welfare Research Station is organized primarily for scientific analysis of the factors contributing to child betterment. A laboratory group of children of pre-school age has been organized to furnish subjects for research in the mental, motor and social development of young children.

Experimental laboratory studies on mental and motor development are carried on by the Department of Psychology with special reference to child welfare, with field studies for the purpose of assembling data for establishing developmental norms.

Anthropometry: The Department of Anthropometry conducts experimental and field work to determine how children grow. By coöperation with the Federal Children's Bureau, measurements were obtained on 40,000 Iowa boys and girls between the ages of birth and six years. A study of these records reveals important characteristics of the growth of Iowa children who are taller than the average of children in the United States as a whole, but also lighter than they should be for their height. Another investigation deals with the growth of the wrist bones, studied by means of the X-ray photograph. Since the size of these bones is a very accurate indication of the general physical development of a child, the formulation of a scale of anatomical development will prove of great value for diagnostic purposes. A study on the borderline of psychology and anthropometry will work out the relation between stages of physical development and mental maturation.

Nutrition: The Department of Nutrition, working in coöperation with the College of Medicine, is making contributions to the theory and technique of stimulating growth and preventing malnutrition during the pre-school age.

Sociology: The Department of Sociology aims to study, by the statistical method, through field surveys and research among existing statistical records, the social, civic and economic environment of the child, its social development and the social factors that condition child welfare.

Eugenics: The allied field of eugenics includes such problems as the effect of general and specific conditions of heredity

and environment on the conservation and betterment of normal children, the influence of physical health, superior mentality and moral development as affecting selection in marriage and the relative distribution in the State of normal as compared with inferior children. Work is also going on in the field of physiology where a study is being made of the circulation and respiration of children as affected by the output of physical and mental energy.

Coöperating institutions and agencies: The station has been located in Iowa because the people of this State have keenly felt its need and the University and the State Legislature have been willing to take the initiative in organizing such a research center, which is contributing basic principles of child conservation to the country at large. The National Research Council is coöperating with the station in connection with some research of importance to the children of the country. The station is also affiliated with the Smithsonian Institution of Washington. The Federal Children's Bureau has coöperated directly with the station in some important investigations in the ninety-nine counties of Iowa, and other surveys with this bureau and with other associations and private foundations are in the process of development.

BIRD T. BALDWIN, Ph.D., *Director*

6. BABY HYGIENE ASSOCIATION

Boston

1. Organized 1909. Under voluntary auspices.

2. *Scope of work:* Education of mothers in care of their infants and children up to school age by means of home visits of nurses and conferences with physicians.

3. *Governing board:* Eleven men and 10 women with auxiliary station committees.

4. *Staff:* Nurses, 1 supervisor, 25 field workers. Doctors, 1 medical director, part time, 28 part-time conference physicians; 6 post-graduate students on free service. Nutritionists, 5 on full time, 6 on part time. Clerical assistants, 3.

5. *Divisions of work:*

Infant care: Twenty-one centers at which weekly conferences are held. Seventy-nine per cent of the babies under six months on the roll are breast-fed; 21 per cent bottle-fed.

Pre-school age: Twelve weekly conferences; 12 nutrition classes affiliated with infant clinics.

[Since this report was written, the association has inaugurated a *Habit Clinic* under the direction of Dr. Douglas A. Thom. This clinic deals with cases of behavior disorder, faulty habit formations, and conduct problems in young children.]

6. *Statistical:* Age of babies or young children under care, school age. Total number under one year cared for, 9296; total number between 1 and 5 cared for, 5176. Total attendance at conferences during the year, 6205.

Total population of Boston, 750,000. Total births for the year ending December 31, 1920, 19,537. Total deaths among infants under care of the Association, 166; among children from 1 to 5, 78.

7. *Record forms:* We use our own record form which gives a summary of pre-natal and obstetrical care and a continuous record for the child from infancy through school age.

9. *Coöperating agencies:* There is good coöperation between the Association and other groups in Boston interested in child welfare, including the City and State Departments of Health, hospitals, medical schools, relief organizations and nursing groups.

13. *Financial:* Total budget for the last fiscal year, $74,920. The Association is supported by membership dues and contributions.

14. In July, 1921, the Dietetic Bureau, which was established in July, 1918, became a department of the Baby Hygiene Association. The Bureau was established as a central organization to help the various agencies working in the community to solve the food problems in the families with which they came in contact. The experience of the Bureau demonstrated the fact that nutritional work is a part of health work and that the greatest opportunity for constructive work is with the little children. As a department of the Baby Hygiene Association the Bureau is still ready to serve all agencies in helping to solve the food problems of their families and the work with the pre-school age children is being developed and strengthened.

Urgent needs: The great need is for the babies and children

who are not yet reached. Over 6000 babies came to us last year, but it is safe to say that at least 4000 more might have been benefited by supervision. Fourteen hundred babies had to be discharged when they were two years old because there were not enough workers to continue to care for them. Of the approximately 75,000 children between the ages of two and five in Boston, only about 2200 were under our care. We are barely making a beginning in this field and the need is very great judged by the work we have found to do with the 2200.

This work cost $6.71 per baby last year. But in spite of the low per capita cost the sum total makes the support of such work a serious question for the public to consider. And yet can the public afford not to support it? For after all the chief business of the "grown-ups" is to safeguard the children.

The mothers of babies have contributed over $2200 to the work by becoming associate members of the organization, and they have also assisted in local activities for the support of their particular station.

During the year, station committees for as many stations as possible have been formed for the purpose of increasing the efficiency and activities of the stations and also for the purpose of developing local support. The beginning promises well for the future, for we must look to community support for a community need.

WINIFRED RAND, R.N., *Director*

7. CHILD WELFARE LEAGUE OF AMERICA

New York City

1. Organized 1921.

The League has no direct contacts with children. It is a League of about 75 child welfare agencies scattered throughout the United States and Canada. Its work is largely educational and for the purpose of standardization. Studies are being made of conditions in the field of our agency members; at the same time studies are being made of standards of child hygiene, in order that they may be incorporated as far as they are applicable in the programs that are recommended by the League.

The object of the League is to secure the following results:

1. The better understanding of child welfare problems.

2. The formulation and improvement of standards and methods of the different forms of work with children.

3. The making available for all of its members the assured results of successful effort in any part of the field.

4. The development of inter-society service.

C. C. Carstens, *Secretary*

8. National Federation of Day Nurseries

New York City

1. Organized 1898.

2. *Scope:* To bring about coöperation between the different organizations and to raise standards of work.

3. The Federation is governed by a Board of 12 women.

14. *Supplemental statement:* The work of the Federation is toward coöperation. There are four centers under it, which require that members shall follow the minimum standards that have been adopted. In four States, California, New York, New Jersey, and Massachusetts — and in three cities, Chicago, New York, and Cleveland — the Departments of Health have power to issue and withdraw licenses. Each nursery in the country is supposed to have a doctor connected with it, who examines children before entrance, and in many, examines all children who have been admitted, twice a month. Many nurseries have a visiting nurse connected with the staff, and many have a trained nurse as superintendent.

Mrs. Arthur M. Dodge, *President*

9. Ruggles Street Nursery School and Training Center

Boston

The daily program of the Ruggles Street Nursery School is not rigidly fixed except for the hours set for meals and sleep. Lunch comes at ten o'clock and dinner at twelve; the children lie down for the nap at one o'clock and wake at three. From half-past eight to half-past nine the children are arriving. A trained nurse examines each as he comes in, to prevent infection and to teach the mothers and children

health habits. As soon as the inspection is over, the children play about freely with toys until it is time to gargle with salt and water just before the nurse leaves at half-past nine. Then we form a circle and sing the morning hymn followed by rhythmic exercise and simple dramatic singing games. After lunch there is approximately three quarters of an hour spent in individual occupations at tables. These consist of certain pieces of Montessori apparatus (notably the solid cylindrical insets, the geometrical insets, the color tablets, the blocks graded in sizes, and sometimes the buttoning frames), kindergarten blocks, beads and peg boards, drawing with chalk on the blackboard, plasticine, paper-cutting, sand, etc. During the period the children may change their occupation. Some will be engaged in three different occupations in that time, others in only one. The children's needs vary so that we make no rules in regard to the use of materials except that it shall not be destroyed. We mean, however, to have them make a real effort to use what is in their hands, especially if they have chosen it. Following this period is one of physically active free play, and then comes preparation for dinner. After the nap there is again time for free play until the children are called for.

The most important thing from the educational point of view seems to be the emphasis on the child's individual needs. Our aim is to give them true freedom to develop themselves within law. We have few rules and fewer prohibitions, but the lesson of self-control is one of the most important of the school. The atmosphere is happy and joyful, for each child is contentedly occupied with something which satisfies him.

The response of the parents to the opportunities in the school has been very gratifying. Two mothers come once a week to help us, one bringing her nine-months-old baby with her to sleep all day outdoors. Several mothers' meetings have been held; many of the mothers and other relatives have visited and the fathers frequently bring or call for the children, evidently in order to have a look at the school. Some of the fathers have shown especial interest in the mental ability and development of their children. In several striking cases the school has clearly been a demonstration to the parents in the matters of physical care and discipline.

Through success with the children we gain the parents' confidence, and when we see the parents' eyes sparkle with delight in the newly discovered possibilities in their children, we know we have not taken the children away from them, but given them to them more truly than ever. Of course the reaction of all the parents is not equally good. Some of them look upon us as a convenience, not an opportunity; but in most cases these are parents whose children have been with us only a little while. Time for demonstration is needed.

ABIGAIL ADAMS ELIOT, *Director*

10. HENRY STREET SETTLEMENT, NURSING DEPARTMENT

New York City

A study of the work of the nursing service as shown by the yearly statistics and a comparison of these statistics with those of the preceding year (1919) show an appreciable progress along all branches of the work. The staff in 1920 averaged 212 members; in 1919, the average was 165. The internal composition of the staff during 1920 differed from the staff of 1919 largely because of the student body. In 1920, 55.2 per cent of the staff were graduate nurses, and 29.7 per cent were student nurses. In the previous year 67.9 per cent were graduate and only 18.2 per cent were students. This large increase means that the educational work of Henry Street's Nursing Service has become a very important factor, indeed. The student nurses fall into three groups:

1. The graduate students who through the affiliation with Teachers College obtain a field experience of ten weeks or four months before or after the course at the college.

2. The undergraduate students who are released by their school for a period of four months. This course includes twenty-eight to thirty-two hours in the field and six points at Teachers College. The subjects for which these students are entered are, unless previously covered: Nursing, 41; the Principles of Public Health Nursing, Social Service, 87; Principles of Social Work, and a course in Nutrition. These students come to us from the training schools of the Presbyterian, the Post-Graduate, St. Vincent's, Lenox Hill, and Bellevue, New York City; the Newton Hospital, Newton Lower Falls, Massachusetts; the Samaritan Hospital, Troy; and the Army School of Nursing.

3. The undergraduate students in obstetrics, who through an affiliation with the Manhattan Maternity Hospital have a month in the 79th Street Center where the nursing care rendered the maternity case includes pre-natal, attendance at birth, and post partum. The students obtaining this experience come from some twenty-six schools of nursing.

In 1920, 316 students completed their course — 189 General and 127 Manhattan Maternity.

In 1919, 169 students completed their course — 58 General and 111 Manhattan Maternity.

This change in the composition of the staff does not translate itself into any loss in work accomplished. The student body composed slightly more than one-quarter of the staff of the 1920, but made one quarter of the total visits made. The increase of the staff by forty members allowed the service to be extended to 7469 more patients than was possible to take under care in 1919, and it was possible to make 52,954 more visits than during the previous year.

Number of patients in 1920	42,902
Number of visits made in 1920	336,722
Average number of nurses during 1920	212
7910 patients under 1 year	274 deaths
1895 patients under 2 years	121 deaths
3242 patients 2 to 5 years	90 deaths
4576 puerperium	6 deaths
525 pregnancy	0 deaths
2629 pregnancy and puerperium	2 deaths

Jessie Rogers, R.N., *Assistant Director of Nurses*

11. Maternity Center Association

New York City

1. Organized April 1918. Voluntary.

2. *Scope:*

(1) Through maternity centers the Association provides medical supervision and nursing care throughout pregnancy to every expectant mother who can be reached and who is not already receiving medical and nursing care. She is taught how to prepare for the new baby. Through the coöperation of doctors, hospitals, midwives and existing organizations the best possible arrangements are made for the mother's

care at the time of her baby's birth and during the following month.

(2) The Association maintains a clearing house at its headquarters, to which hospitals, individuals, and organizations report all maternity patients in order to prevent duplication in maternity work.

(3) It acts as an educational agency for the entire country in popularizing the need for pre-natal care and in demonstrating the possibilities of life-saving through intensive pre-natal work.

3. The Association is governed by a board of 4 men and 38 women.

4. *Staff:* Nurses: 1 director, 2 supervisors, 22 field workers. Doctors: 2 on full time, one on free service. Clinic Assistant: 1 lay woman. Clerical Assistants: 8.

5. *Divisions of work:* Pre-natal: 20 weekly clinics.

6. During 1920 the Maternity Center Association cared for over 11,000 mothers and their babies through its 25 maternity centers and its staff of doctors and nurses. Patients made 25,102 visits to the clinics, and 63,488 visits were made to the homes by the nurses.

13. *Financial:* Estimated budget, $104,000.

14. *Supplemental statement:* In 1920 in Manhattan 1 mother died for every 205 babies born; 1 out of every 26 babies died under one month of age; 1 out of every 21 babies was born dead. When pre-natal care was given the mother under the supervision of the Maternity Center Association only 1 mother died for every 500 babies born; 1 out of every 51 babies born died under one month of age; 1 out of every 42 babies was born dead.

ANNE A. STEVENS, R.N., *General Director*

12. PUBLIC HEALTH FEDERATION DIVISION OF COUNCIL OF SOCIAL AGENCIES

Cincinnati

1. Organized 1918.

Until the formation of the Public Health Federation there was no organization for coördinating the work of the many agencies dealing with the different phases of the health problem. The specific purpose of the Federation is to co-

ordinate the work of all of these groups, formulating comprehensive programs for meeting the important problems in the health field and keeping each agency informed of the work being done in other fields.

Cincinnati was the first city in the country to federate its health activities in this way and is still the only city which has been able to bring about effective coöperation of all its agencies. The Federation is the health branch of the Council of Social Agencies and is financed by the Community Chest.

The Federation is made up of representatives of all organizations in Cincinnati doing any phase of health work. Each organization is entitled to two representatives.

The Federation operates through Divisional Councils on the important phases of health. The Federation has the following Divisional Councils: Cancer Control; Child Hygiene; Hospitals; Housing; Industrial Health; Mental Hygiene; Nursing; Recreation; Social Hygiene; Tuberculosis.

Each Council is made up of representatives of the organizations interested in that particular problem and each Council elects its own chairman and may elect other officers if it chooses.

The active work of the Federation is directed by the Coördinating Committee made up of the officers and the chairmen of the Divisional Councils. The District Health Commissioner of Hamilton County has recently been made a member of the Coördinating Committee. The staff consists of the Executive Secretary, Educational Director and the Assistant Secretary.

The Federation has affiliated with the American Public Health Association in the national field and with the Ohio Public Health Association in the state field. It also has membership in the national organizations doing health work.

The Child Hygiene Division, selected as its most important piece of work for the year, a demonstration in protecting children against diphtheria. The Board of Health agreed to undertake the demonstration with the Public Health Federation assisting by organizing a staff of pediatrists to supervise the demonstration and by financing the work.

The urgent need of immunizing children from diphtheria will be understood from the fact that 700 children in Cin-

cinnati are reported every year suffering from this disease. The demonstration recently completed was carried on under the direction of the Board of Health in two public schools and in several child caring institutions. Some 800 children were given the Schick Test to determine whether or not they were susceptible to the disease. Those found susceptible were given three injections of toxin antitoxin at intervals of a week.

A Day Nursery Association was organized in the fall of 1919 as a subcommittee of the Divisional Council on Child Hygiene. Later it was organized into a permanent section of this Council.

The purposes for which the section was organized are:

1. To work out standards of admission for children.

2. To provide proper investigation before admission in order to prevent children from being taken aimlessly from one nursery to another.

3. To have each child receive a complete physical examination and to have all remedial defects corrected.

4. To promote the use of standardized records.

5. To have all day nurseries provide adequate medical supervision.

The membership is made up of four representatives from each of the nine day nurseries in the city. Representatives from the following organizations are also eligible to membership: The Public Health Federation, Child Hygiene Council of the Public Health Federation, Board of Health, Associated Charities, Bureau of Catholic Charities, Committee on Child Care and Boarding Homes, Negro Civic Welfare Committee, Babies' Milk Fund Association, Cincinnati Kindergarten Association and the Anti-Tuberculosis League.

The section has two standing committees, one on Program the other on Standards. The meetings of the section are held once each month and afford the members opportunity for discussion of common problems and hearing from prominent speakers on child welfare subjects.

Standardized record forms have been adopted and when in use by all of the nurseries sufficient data will be available for a comprehensive study of day nursery problems.

BLEECKER MARQUETTE, *Executive Secretary*

APPENDIX F

THE EXAMINATION OF SCHOOL BEGINNERS

A COÖPERATIVE DEMONSTRATION GIVING THE RESULTS OF THE PHYSICAL AND MENTAL EXAMINATIONS TO CHILDREN UPON REGISTRATION BEFORE ENTERING SCHOOL

A Report presented by the Committee on Education of the Civic Club of New York; the New York City Department of Health; the New York City Department of Education; the Health Service, New York County Chapter, American Red Cross; the New York State Association of Consulting Psychologists.

CONCLUSIONS, BY IRA S. WILE, M.D.

1. Complete physical examination and individual intelligence tests should be given all children before admission to a school.
2. Placing the registration time for new entrants to the kindergarten and first primary grades in the last or second last month of each term makes possible the suggested examinations.
3. Follow-up work to secure the requisite remedial service should be intensified during the time period between the registration with examination and the opening of the succeeding school term.
4. There is great need to transfer the emphasis placed upon the medical inspection of school children to the medical inspection of pre-school age children with an increased emphasis at school registration.
5. The investigation indicates that there are no administrative difficulties in accomplishing the program for all new entrants, though it requires a reassignment of work to medical inspectors, school nurses, and psychologists.

6. A larger number of psychologists is required for studying the psychological problems existent in school systems.
7. The program involves no increased expense where an adequate personnel already exists.
8. Schools may be more intelligently organized, graded and supervised with an immediate knowledge of the physical and mental characteristics of the new entrants.
9. District school organization with the requisite number and types of auxiliary classes is facilitated.
10. The necessity of a dental and oral hygiene clinic as a school adjunct is evident.
11. There is reason to believe that the introduction of the tested program will (*a*) promote the physical welfare of school children, (*b*) increase the benefits of mental hygiene in schools, (*c*) advance educational standards in method and content, (*d*) lead to greater elasticity in the curriculum, (*e*) save the time and energy of teachers, (*f*) tend to decrease unnecessary retardation and elimination, (*g*) make each child an individual entity, instead of a fraction of a class.
12. The result of the investigation clearly indicates the value of its adoption as a regular procedure by all far-sighted, progressive and coöperative Departments of Health and Education.

APPENDIX G

A MENTAL HYGIENE SERVICE FOR PRE-SCHOOL CHILDREN

Paper read by Dr. Arnold Gesell at the convention of the American Public Health Association, at Cleveland, Ohio, October 16, 1922

Only thirty years ago Dr. Budin established, in Paris, the first Infant Welfare Center. It was a simple but practical conception — a consultation center for the examination of babies and the instruction of mothers in child care. Infant welfare centers have since spread the world over. They have multiplied at a phenomenal rate during the last few years in England and America. Ambassador Jusserand, speaking in 1910 at the first annual meeting of the American Association for the Study and Prevention of Infant Mortality, said: "When its far-reaching results shall have been gauged, France will be as proud of Dr. Budin for his good work, as she is even of the discovery of the most startling inventions made by any of her sons in the realm of science or industry."

The ambassador spoke with characteristic French insight; for the child consultation center, simple as it is, represents a social device with unlimited possibilities of growth and elaboration. The grafting of a mental hygiene service on the consultation and health center organization is one of these possibilities. The center is nothing less than a vital point of contact, where child, parent, and the scientific social inheritance of the race meet in order that lives should be saved and made more complete.

In some respects this social device, the child consultation center, is of more significance even than the public school. Why? Because it copes directly with the most fundamental of all problems, the rearing of children. It makes health its undivided concern. It reaches the parent as well as the child. And it reaches the child before he has attained that stage of relative completion and superannuation — the school age!

In a developmental sense, the child is indeed a pretty well-finished product when his sixth year molars begin to erupt. The pre-school years are incomparably the period of most rapid and most fundamental growth, whether physical or mental. Biologically, the pre-school period is the most important period in the development of an individual, for the simple but ample reason that it comes first. Psychologically, the pre-school years are basic because the foundations of the structure of personality are then laid. It would not be dogmatic to say that no child mentally ever outgrew his first six years. Medically, the pre-school age is of critical consequence because it exceeds all others in mortality and morbidity. It is the strategic sector on which to concentrate the defenses of preventive medicine. Most of the physical defects of school children originated or preëxisted in the pre-school period. To an astonishing extent, this is also true of mental defects and mental abnormalities.

Let me attempt to prove the last statement. From the standpoint of mental hygiene we may recognize, broadly, three classes of exceptional or problematic children: (1) the mentally deficient; (2) children with special sensory or motor defects which have a tendency to handicap the individual in a mental as well as physical sense — the blind, the deaf, the crippled, and the speech defectives; (3) the mentally abnormal — the psychopathic, the unstable, the delinquent — children with conduct disorder. To what extent do all these problems demand a mental hygiene service in the pre-school period?

1. Practically every case of mental deficiency originates and is recognizable in the pre-school years. Feeble-minded children are frequently misunderstood, mismanaged, and maltreated during the pre-school age, because the parents have secured neither diagnosis nor advice. There should be opportunity for early diagnosis, systematic guidance in home care; and more provisions for supplementary nursery care and nursery training. The feeble-minded child of school age is receiving attention through auxiliary schools and special classes. In comparison the feeble-minded child of pre-school age is neglected.

2. The sensory motor defectives in the aggregate constitute a very considerable group from the standpoint of public

hygiene; and here again the child of pre-school age has special claims upon us. An appreciable proportion of all cases of blindness occur in the pre-school period. Three fourths of all deaf individuals were so handicapped before their sixth birthday. Of all the crippled, one third became so before the age of five. Fully eighty per cent of all cases of speech defect, including the serious defect of stuttering, originate before the child goes to school.

Now, in addition to purely medical attention, all these children need a special educational oversight and a supervision of their mental welfare. They are entitled to a kind of mental hygiene service. Precious time is lost, injustice is done, by idly waiting for the school years and the institutional years. The blind child should acquire his elementary habits of deportment and personality during the nursery years; the deaf child should learn to talk in the nursery years; the health of personality in the crippled child should be safeguarded from the first; and speech defects should be discovered and treated in their incipiency.

3. We shall not go to any psycho-analytic extreme in estimating the proportion of cases of mental abnormality which have their roots in the pre-school period. It is sufficient to say that the numerous cases of conduct disorder, perversions, behavior anomalies, which manifest themselves in the nursery years, are of too serious import to be ignored. They frequently are the symptomatic heralds of later delinquencies and personality defects. From the standpoint of the public health nurse and public health official, it must be thought provoking that many of the typical conduct disorders of infancy express themselves as perversions of such apparently simple functions as eating, sleeping, elimination, speaking, and obeying. The extremely spoilt child, the morbidly silent, reserved, and timid child, the domestic tyrant, and many unnamed clinical varieties of behavior disorder need timely educational procedure if we wish to lessen some of the bulky burden of nervous and mental invalidism which society now bears. Educational authorities, through increasing applications of special educational, psychological, and psychiatric methods, have addressed themselves to a program of prevention and amelioration. But the most essential and promising area for further operation

lies in the domain of public health, in the pre-school field; and this demands the development of a workable technique which will render a mental hygiene service, not only to the more, but to the less, abnormal and to the normal pre-school child. Unless we achieve such a technique, pre-school mental hygiene will tend to remain in a tenuous state of aspirational nebulosity.

What are some of the features of a mental hygiene service which are at least on the horizon?

Periodic mental health examinations are a discernible possibility. The diagnostic and advisory functions of welfare and health centers should be gradually extended to include the hygiene of mental development. It will take much planning and investigation to work out a proper procedure; but it is time to take conscious steps toward the goal. At the Yale University Psycho-Clinic, we have for some time, through the coöperation of the visiting nurses, paid special attention to the youngest age group of children. We have undertaken a program of research to determine the norms of mental or behavior development in children of pre-school age, with the hope of defining methods of clinical and social procedure in this field. We have examined some three hundred children at the 6, 9, 12, 18, 24, and 36 months age levels. These inquiries are directed toward personality as well as intelligence traits; and suggest the possibility of formulating concrete minimum standards for guidance in a more inclusive program of developmental supervision of pre-school children. I do not think it very urgent that we affix I.Q.'s to the babies at milk stations; but I would admit that public health administration and welfare agencies are headed toward a policy of pre-school health supervision, which will be as comprehensive as the best health work in public schools, and which will yet come to include a mental hygiene service from the cradle to the kindergarten.

The habit clinic sponsored by the Baby Hygiene Association of Boston has shown the possibility of doing preventive and corrective psychiatric work in this field. The new nursery schools in Boston and elsewhere will no doubt develop a very useful auxiliary service for the mental hygiene of pre-school children. Both nurseries and kindergartens have an important contribution to make.

It is extremely indicative, that a few educational as well as public health leaders have begun to assert the social significance of the pre-school child. There is evidence that the foundations of the public school system will be dug a little deeper in the interest of public policy. This "no man's land in the field of social endeavor" is being entered from the educational as well as public health camps.

One of the most suggestive signs of the times is Clause 19 of the famous Education Act of 1918, which confers upon local educational authorities in England "the power to supply, or aid in supplying, nursery schools for children over two and under five years of age whose attendance at such a school is necessary or desirable for their healthy physical or mental development."

Under this law over a score of nursery schools are now being supported by the State, and a greater number are maintained by voluntary organizations. In this country several experimental and demonstration nursery schools have been established, and there are signs of an interesting nursery school movement. One of these schools, the Merrill-Palmer School in Detroit, correlates its work in a most promising way with a practical course in child care for college students.

There is, as yet, no reason to predict that the nursery school will displace the American kindergarten. It may be hoped, however, that this new movement will put the present kindergarten on its mettle and transform it into a more adaptive, health-promoting agency which will perform a bigger and more discriminating work in the field of pre-school hygiene.

It appears, then, that a mental hygiene service for pre-school children can be realized if we extend and exploit the instruments which we have already at our disposal: (*a*) the consultation and health center to provide a more systematic supervision of mental development; (*b*) conferences for the guidance of parents; (*c*) public health nurses, psychiatric social workers, and pre-school visiting teachers to render more direct assistance in the home; (*d*) adaptations of nursery establishments, kindergartens, and special classes in behalf of the more exceptional, handicapped infants; (*e*) an active alignment of a reconstructed kindergarten with the public health and child welfare agencies of the community; (*f*) an

effective type of pre-parental education dealing with the mental hygiene of child care.

These possibilities are above the horizon. They will not all be realized to-morrow, but, perhaps, some day after to-morrow the agencies and movements mentioned may be co-ordinated to render a hygienic service — which will seek to conserve the mental health of the young child and which will increase his mental stamina

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